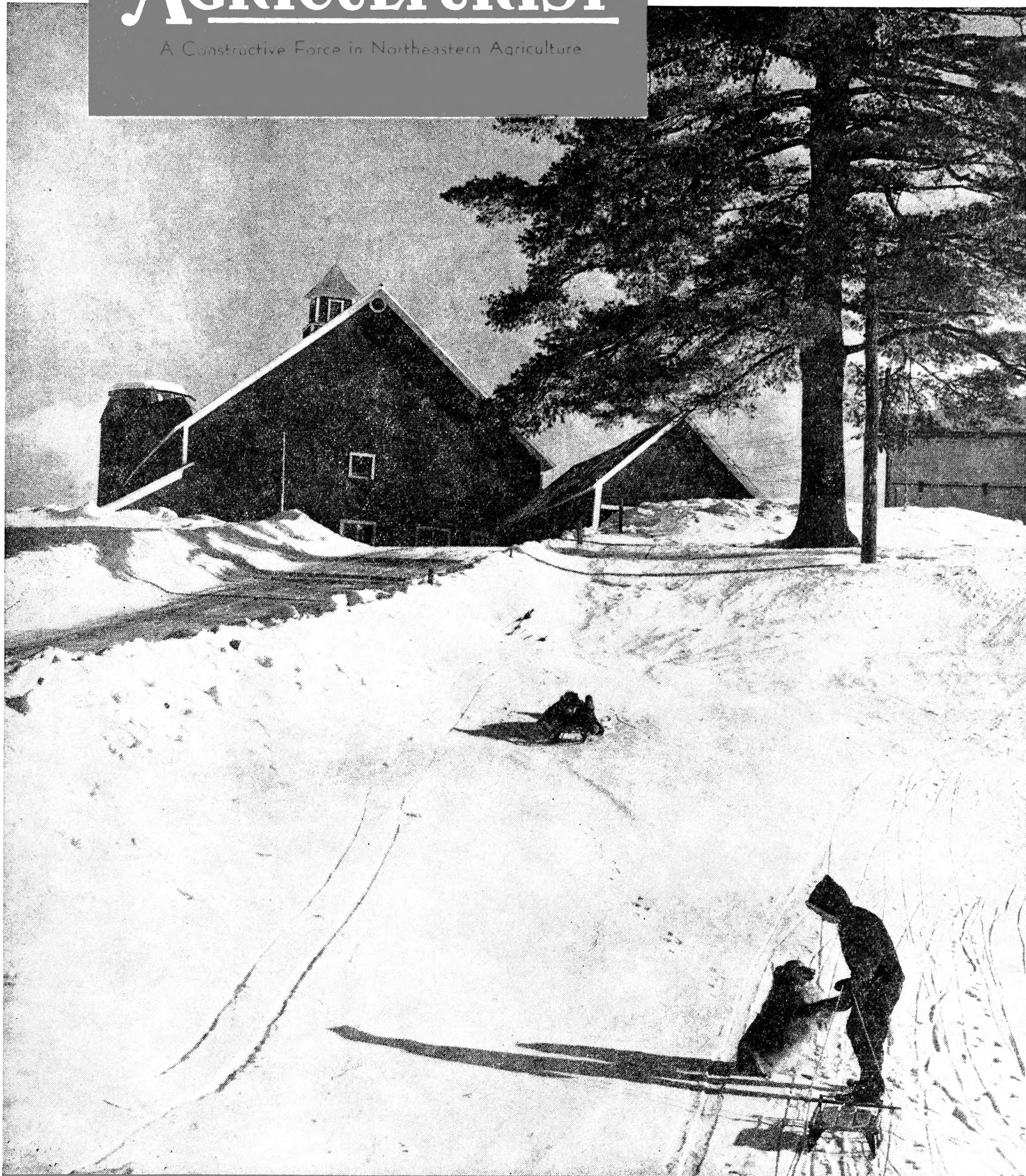


Founded 1842

AMERICAN AGRICULTURIST

A Constructive Force in Northeastern Agriculture

JANUARY 1963



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Silage Corn—20 Tons/Acre!

Bob Branton, dairyman of Batavia, N.Y., grows a lot of corn—120 acres. This fall he harvested 20 tons of silage to the acre.

Mr. Branton uses the GLF Complete Crop Needs Package.

STARTS WITH A SOIL TEST

GLF takes Mr. Branton's soil test, and the Branton fields are limed and fertilized according to soil test recommendations.

Last spring Mr. Branton planted Cornell M3 seed corn. He put on between 400 and 500 lbs/acre of GLF 10-10-10, and side dressed with 50 lbs/acre of liquid nitrogen.

HAY

The Branton milking herd numbers 125 cows, so he

must get a lot of hay too. "I had been top dressing my alfalfa with 300 lbs. per acre of GLF 0-20-20, but this past year I used 400 lbs. It made quite a difference in my hay yields."

A dairyman's cheapest source of feed can be his hay and corn fields. Call your GLF. Have a crop representative explain the GLF complete crop package—lime, seed, fertilizer and pesticides. See how it can benefit you. Get the most feeding value from your hay and corn fields next year.

Cooperative GLF Exchange, Inc.,
Ithaca, N.Y.



GLF COMPLETE CROP SERVICE

BETTER THAN EVER IN '63



JOHN DEERE 1010 and 2010 TRACTORS

New "work-matched" speeds — You'll put out more work daily with more "pull power" in the most-used gears; in the new "slow-low" range, go non-stop with a PTO machine through heavy crops; do precision planting and cultivating right. All transmissions offer improved "work-matched" speeds.

Easier to operate — On a new "1010" you shift gears with either hand; work the throttle more easily; relax in a new "posture" seat. "2010's" offer faster power steering; Row-Crop offers Quik-Change rear-wheel tread and remote-cylinder front rockshafts; the Row-Crop Utility — new "seatside" rockshaft-control levers and handier throttle location.

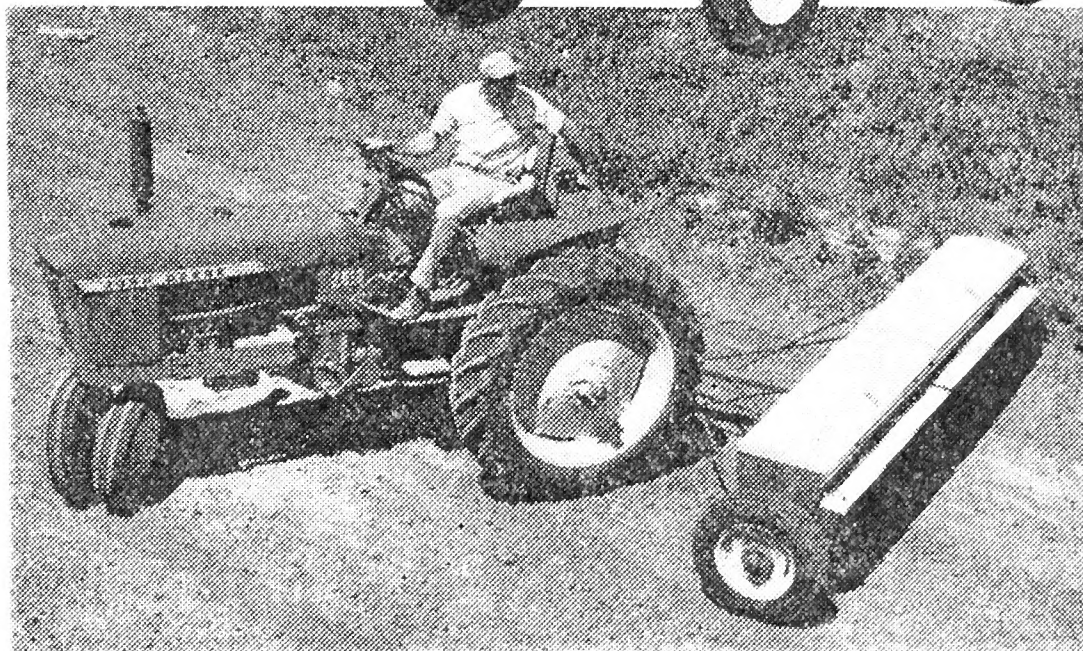
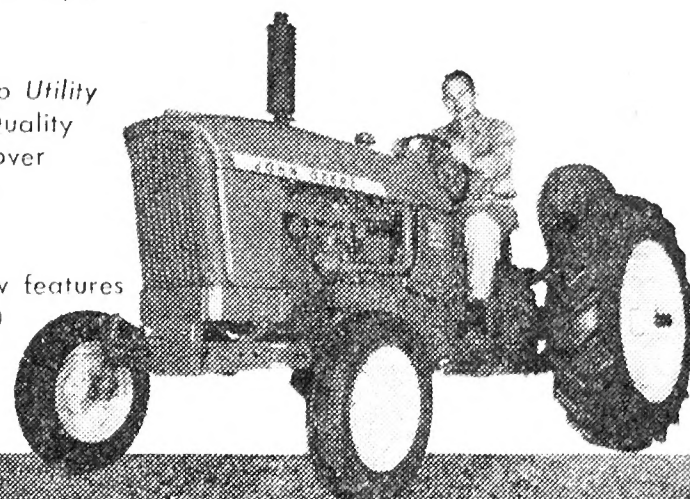
Faster to service — You'll remove — and replace — spring-held access panels instantly without tools when you service air cleaners, etc. New screw-in nozzles and wrap-around injection lines on Diesels make servicing much faster and simpler.

Greater durability — Increased oil flow and larger bearing area step up durability of all engines. New "2010" Diesel engine offers longer nozzle life, higher torque, better fuel economy at low speeds. New "1010" transmission, with bigger, stronger gears and shafts, offer extra durability.

"2010" Row-Crop Utility (above) now offers a new "slow-low" speed of 1.1 mph and a spread of 1.9 to 4.6 mph in "plowing" range.

New "1010" Special Row-Crop Utility (right) provides John Deere Quality at a new low price; delivers over 36 h.p. measured at the PTO.

"2010" Row-Crop (below) now features rack-and-pinion (Quik-Change) rear-wheel adjustment and front rockshaft operated by two remote cylinders.



JOHN DEERE

3300 River Drive, Moline, Illinois

John Deere design, dependability, and dealers make the difference

Editorials

By Gordon Conklin



QUIET SUMMER

TWO PEOPLE sat on opposite ends of a log in a forest clearing, cracking acorns and eating them greedily. One was a young boy, the other was white-haired and bowed with years.

"Gramps," said the boy, "I found an old newspaper dated 1962 in the bottom of that old trunk in the cabin. It talked about a food surplus. What the heck is a food surplus?"

"Well," the old man replied, "back then farmers produced so much food that it ran out of our ears. We thought it was a terrible problem—but they seem like good old days now."

"Let's see," the boy asked, "you worked with test tubes and stuff then, didn't you?"

"Yes, I worked on chemicals to control insects and diseases on crops. But there were a number of people who believed that no chemical material should be used in agriculture—and they were very noisy about it. Finally, a book came out entitled 'Quiet Summer' that really gave us the business. It carried just enough truth to get people excited about being poisoned by chemicals, but its conclusions were way off base.

"I tried to tell folks that without insecticides and fungicides we just couldn't begin to feed our people; that one of the greatest strengths we had as a nation was our enormously productive agriculture; that our abundance depended on upsetting the 'balance of nature' on man's behalf; that we shouldn't throw out the baby with the bath water when problems arose. But they got all upset and emotional—just didn't want to listen—and so laws were passed that made it impractical to use chemicals in the production of any food product.

"The 'Larutan League' headed up a crusade, with their slogan 'Larutan is Natural spelled backwards.' They had a marching song entitled 'Forward to the Rear', and even developed a flag of their own. This flag showed a boy pick-

ing beetles off potato plants into a can of kerosene; the potatoes were growing on a compost heap.

"So now we live naturally. Your mother died naturally from the malaria that mosquitoes gave her; your Dad passed away naturally in that terrible famine when the grasshoppers ate up everything; now we are starving naturally, because the blight killed those potatoes we planted last spring. I only wish the author of that book had stayed around to share the joys of living 'naturally'—but she made so much money as an author that she moved to a country where her book was banned. Farming there is still 'unnatural.'

"Please pass the acorns!"

IT'S CREEPING UP

REGULARLY LOOK through a monthly publication put out by the USDA entitled "Crop Production." As the 1962 corn crop progressed from planting to harvest, the predicted total yield figures reported in this publication constantly increased. The November 1 forecast said, "Corn grain prospects, at 3,590 million bushels, are up 2 percent from last month but 1 percent below the 1961 crop. A record yield of 62.4 bushels is indicated—.6 of a bushel above the previous record high last year (1961) of 61.8 bushels."

Well, U. S. farmers have again confounded the experts. In spite of the acreage reduction goals in the feed grain program, they have managed to post a new record of yield per acre. Over in the wheat country of the Great Plains, folks are even now talking about a new hybrid wheat that may jump yields per acre considerably.

The planners who conceive the legislative programs for farming just can't seem to keep up with the productive capacity and management ability of modern farmers, aided as they are by the fruits of college and industrial research.

WHAT'S IT REALLY MEAN?

JIM PATTON, president of the National Farmers Union, seems to be having more than his usual difficulty at spelling out NFU programs so all their implications are clear. His latest proposal for dairy farmers sounds good—"designed to increase incomes of producers \$1 billion per year and, at the same time, maintain reasonable prices to consumers."

It goes on to spell out a few details, "those producers to take part in the program would receive a direct payment from the government for the difference between the market price and \$4.15 per 100 pounds (100 percent of parity.)" A "family farm maximum" would limit government payments to the first 400,000 pounds of milk marketed annually. The 1961-62 marketing year would be used as a base. Milk produced in excess of this base would receive 60 percent of parity (2.49 per cwt.), or the market price, whichever was higher.

Now Jim didn't explore the implications of dairymen receiving two milk checks each

month—one from the handler and one from Uncle Sam. Nor did he discuss whether it's a good idea to discriminate against dairymen who produce more than 400,000 pounds of milk a year, of which the Northeast has a considerable number.

Although seemingly concerned about keeping consumer prices down, he obviously evaded the fact that the true retail cost of milk should include the money consumers pay in taxes to carry the proposed program. Furthermore, artificially low prices to consumers for any farm product conditions them to expect low prices, as well as removing the incentive for getting market prices up where they should be by such things as promotion, new product research, and collective bargaining.

WHO'S FAT?

SAW SOME figures from the New York State Department of Agriculture and Markets recently that set me thinking. Before considering the figures, though, here's a comment you may enjoy, "Statistics are to a writer what a lamppost is to a drunk—more for support than illumination."

Anyway, the experts tell us that the combined consumption of butter, margarine, and "other fats and oils" in the U. S. amounted to 26.4 pounds annually per person during 1935-39. The comparable figure for 1961 is 28.5 pounds! In spite of all the talk about fat, total per capita consumption of the items mentioned doesn't seem to have decreased, although there **have** been changes in the relative consumption of these items in comparison to each other.



OUR COVER

SOME OF my fondest memories of the old homestead where I grew up are those of sliding down hill. Between "sweat sessions" with a crosscut saw, an axe, the woodbox, a pump handle, and a barn shovel came the chance to

grab a sled and go like greased lightning down the steep dirt road in front of our house. What better way to make the blood tingle and work up a huge appetite?

Now, as then, the snow crunches underfoot; the dog wants to get into the act; young and old have a chance to enjoy a bonus of winter. Kids, don't feel badly if Dad doesn't always share your enthusiasm for snow—he's shivered and shoveled for too many years.

Bet you can get together on one thing, though—nothing beats a dishpan full of buttered popcorn when a blizzard is howling.

Prayer for A New Year

OUR FATHER, we do not pray for an endless accumulation of material wealth, but rather for that abundance of the mind and spirit which transforms the earning of our possessions—indeed, life itself—into a joyful experience.

We do not pray for fame, but instead for the capacity to love our fellow man constructively—in a way which encourages him to move along the path of creative maturity toward the fountain of truth.

We do not pray for a life of ease, without problems or heartbreak. Instead, we ask for the courage and wisdom to meet our days so that the debits and credits of our living may leave a residue on the plus side of the human ledger when our tasks are done. Amen.

AMERICAN AGRICULTURIST

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Founded 1842 Volume 160 No. 1

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AA's Farm Dollar Guide

USDA REPORTS FARMERS ARE GETTING \$3 BILLION LESS per year than they should because present income doesn't cover capital investment and labor cost at \$1.25 per hour for hired labor and \$2.32 for family labor. Inference is that government will push for legislation to give farmers "parity of income." Direct payments (the Brannan Plan) might be one proposed method. What this would bring in way of increased production and further government control is an interesting question.

THE NATIONAL POTATO ADVISORY COMMITTEE again recommends that Congress pass legislation to authorize potato acreage allotments based on the highest acreages in past three years, and with penalties for over-planting. Producers with two acres or less would be exempt. Plan would require a favorable vote by two-thirds of eligible potato growers.

BEFORE YOU MAKE OUT your Federal Income Tax return, look into changes (especially the "new equipment tax credit") that can save you money. One source of information is the article "Farm Tax Management" on Page 8 of the December American Agriculturist. Copies of the Farmer's Tax guide for 1963 are available from your county agent, most commercial banks, and from the District Director of Internal Revenue.

CONSIDER SIDEDRESSING as a way of applying half a corn crop's need for nitrogen. This method is especially good when weather is cool or rainfall heavy.

"FREEZE-DRYING," a method of removing moisture from frozen foods without appreciable change in shape, color or taste, is expected to develop into a billion dollar annual business by 1970.

HOG RAISERS REALIZE from \$10 to \$12 extra profit for each extra pig in a litter.

FARM RECORDS ARE ESSENTIAL, but the way to get full results from them is to compare results with former years' figures and with average figures for other farms in your area, as a guide in making management decisions.

NATIONAL COMMITTEE ON MILK AND DAIRY PRODUCTS recommends that supply management of milk production be considered as a part of Federal milk marketing orders.

NORTHEAST FARMERS CAN GET list of plans available for farm construction. Send request to Agricultural Engineering Extension, Riley-Robb Hall, Cornell University, Ithaca.

The Song of the Lazy Farmer



and get the cows and chickens fed, if you don't you'll get mush instead." So even though I'd like to shirk, I stagger out to do the work because, whatever the pains and aches, I can't resist those buckwheat cakes.

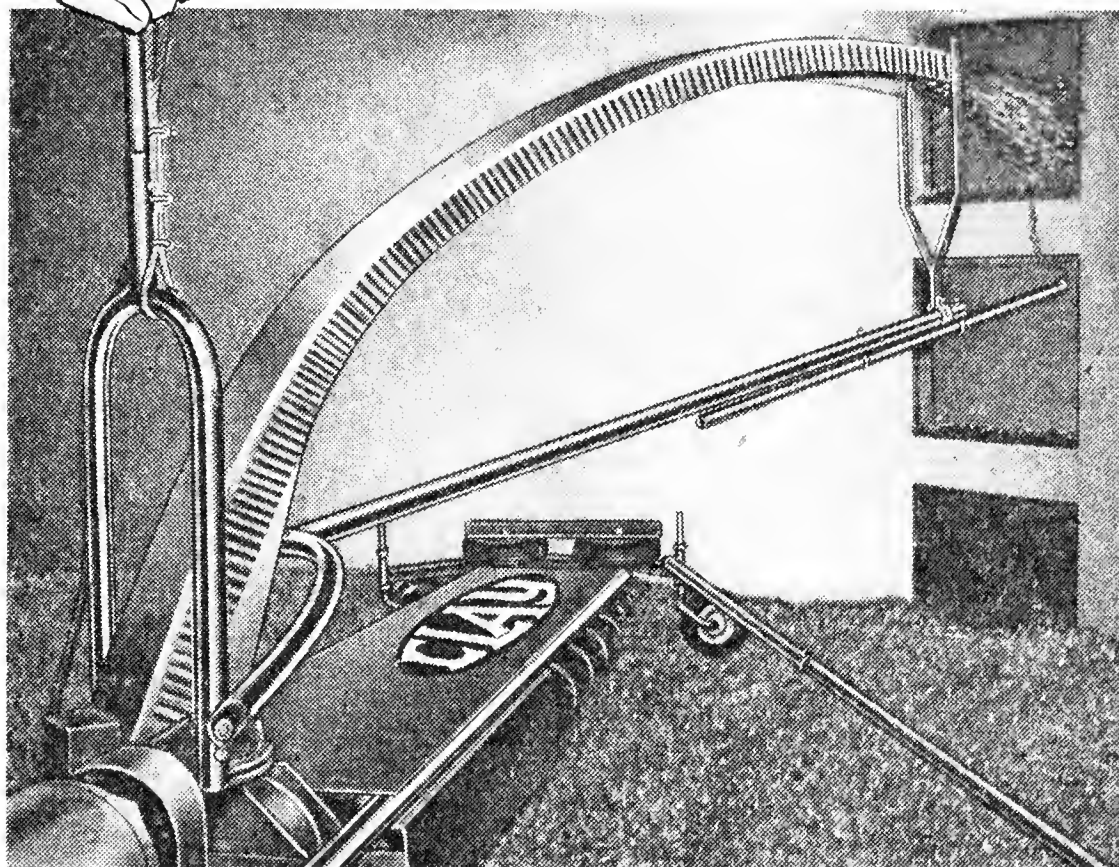
OF ALL the things there are to eat, the one that simply can't be beat is stacks of golden buckwheat cakes, the kind that Jane Mirandy makes. I'm putty in her hands when she whips up her fav'rite recipe and puts 'em, steaming, on my plate. Without a thought about my weight I spread thick butter on the pile, add maple syrup with a smile, then dive right in with greedy lust and eat until I nearly bust. I'm worse than anyone on dope, I wake each day with just one hope: without hotcakes I think I would surely shrivel up and die.

The trouble is, Mirandy takes advantage of my love for cakes and uses it unethic'ly to push the chores all off on me. Whenever she feels tired and old, or if the weather's wet and cold, she's on the spot at break of day to rudely wake me up and say, "If you would like pancakes to eat, you'd better get up on your feet



FREE YOURSELF

FROM the backbreaking work of chopping frozen silage loose and forking it down . . . **FROM** hours and hours of sheer manual labor that you could spend more profitably on management and planning . . . **FROM** dangerous climbs up and down slippery silo steps . . .



put a CLAY in your silo

. . . the one unloader that's so efficient it's

GUARANTEED TO HANDLE FROZEN SILAGE!

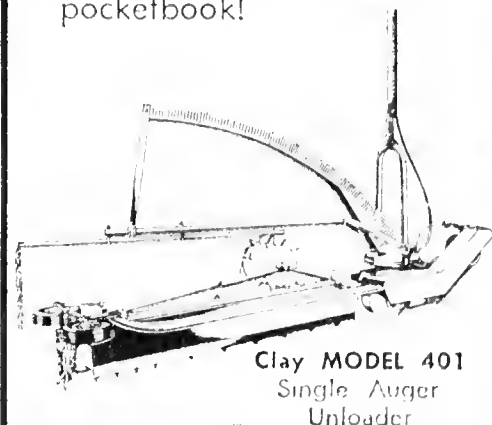
Just flip a switch, and in seconds, your Clay Unloader has fluffy, conditioned silage—just the way cattle like it—pouring down the chute. And whether your Clay's a Dual Auger or Single, it has *unexcelled capacity* to handle even toughest unloading jobs!

Clay's exclusive, dependable, heavy-duty features *GUARANTEE* top performance *ALWAYS*—even if the silage is densely compacted or hard frozen. Features like these make Clay Unloaders *outperform, outlast* all others:

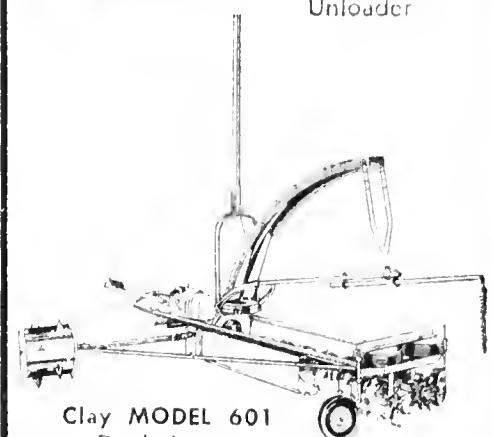
- Big, high-capacity 9-inch augers with double cutting action that dig loose and fluff up even toughest-to-get-out silage.
- Rugged chipper wheels with exclusive angle teeth that chop loose even hardest-frozen silage, shave right up to silo wall.
- 3-blade, cupped impeller that is more efficient and conserves power *BECAUSE IT THROWS INSTEAD OF BLOWS SILAGE*. And it's fully adjustable to maintain just the right clearance for all types of silage.

Don't put in another winter chopping and pitching frozen silage by hand. Write for complete details on Clay Silo Unloaders . . . and Easy Purchase Plan.

2 HEAVY-DUTY MODELS to fit every silo, every pocketbook!



Clay MODEL 401
Single Auger
Unloader



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Dual Auger
Unloader



NEW! JUST PRINTED!

FREE 16-page Automated Feeding Systems Catalog. A real help in planning a sound, efficient system! MAIL COUPON FOR YOUR COPY.

CLAY EQUIP. CORP., 137 Perry Street, Cedar Falls, Iowa

Please rush the following: ☐ Complete information on Clay Silo Unloaders ☐ New Automated Feeding Systems Catalog ☐ Barn Cleaner Catalog ☐ Milking Parlor Catalog.

Name ☐ Student

Address



By F. E. Winch, Jr.*

Eddy Foster, Alfred, New York, has developed this lake, picnic facilities and reforestation.



USE Those Idle Acres!

Here are some ideas about profitable uses for land no longer in farming.

AFTER WORLD WAR I dramatic changes began taking place in the nation's agriculture, particularly in the Northeast. New techniques, new methods, better fertility practices, land liming and land drainage began to be generally used, and even though the equipment was horse-drawn, production of food crops per man hour of labor increased. Also, Henry Ford with his wondrous machine was changing agriculture; hay was no longer needed in Boston, Hartford, New York, Newark and Philadelphia for horses. Thus began the decline of farming in many northeastern hill sections.

With the advent of tractors and power equipment, steep or rocky land and poorly-drained land soon became obsolete. Water— or the lack of it— began to change ideas about farming, so that now one of the big factors in land retirement is the water-handling characteristics of soils. Much land is being abandoned because its water-handling capacity is at the lower end of the scale.

Typical

Over the years the change in the agriculture of the Northeast has been typified by what has happened in New York State. Here, the num-

ber of commercial farms has decreased from 225,000 in 1900 to 65,000 in 1960. Land area in farms has decreased from 22 million acres to 13 million, but the State's agricultural production index has increased from 95 to 133 (1926-30 equals 100) in the same period. Thus, fewer farmers on less land are producing so much more that we cannot eat or sell all they produce, and must, in effect, give away a portion.

And the "dropout" is not over! Our plant breeders are developing higher-producing varieties of nearly all crops; milk production per cow is rapidly increasing; fertilizer, irrigation and soil conservation are building our productive potential on high-grade land to even higher levels. This is happening so fast that the experts predict that in the United States 50 to 70 million acres of what was once farm land will be obsolete for farming at the end of the next ten years. It is logical to expect this "dropout" to come from the areas less favored by topography, soil and climate, which means that much land will become obsolete in the Northeast, and in the northern tier of states east of the Rocky Mountains.

The Northeast was settled from 1620 to 1850, early in the life of the nation. Pinched for land from which to feed a growing population, every

square foot of land that would grow food was cleared. If our settlement had gone eastward from California, Oregon and Washington across the Great Plains and the prairies would we be in the same fix? I believe not!

Alternatives

The recession of active agriculture, the purchase of land by governmental agencies (such as state and federal forestry and game management divisions) and the abandonment of railroads, have caused a deterioration of the tax base essential to maintaining services in the towns. As a consequence, a harder squeeze is put on the remaining landowners, who feel they also have a right to good schools and good roads, and should pay for them on the same basis as their more fortunate cousins on better farm lands within the area. This squeeze can mean more pressure to "mine" the land, cut the forest for all they can get for it, and then leave it for someone else to worry about.

What, then, are the alternatives for solving these problems? There are several—many already on the books, many that may be proposed. Already we have subsidies for forestry, and these may be extended for other uses. We have severance taxes, which may be made more liberal to encourage forestry. We can shift from land taxes to sales taxes, or we can ask more state and federal assistance for the hard-pressed areas. We can have more state and federal ownership; or we can extend and encourage private use and ownership of the land. Space is now—and will be for the foreseeable future — a scarce commodity. Private individuals, clubs, organizations, and urban industries are turning to these rural areas, and they should be encouraged to extend their holdings for non-farm recreation use. This will help to hold the line, and ease the tax squeeze on all rural land.

There are other uses for these lands that can no longer compete in modern agriculture. Farmers generally have been slow to consider anything but the traditional dairy operation, but there are excellent possibilities for wider uses. Probably the first way farmers can use this land is to produce a recreation area. A good example of this is shown by the Homer Skinner family of Broome County, New York.

Sons Donald and Hilton run a dairy farm and equipment business. To give themselves a place "to get away"—and to pasture dry cows—they purchased a 110 acre hill tract near Belden Hill, only a few minutes from home. When the area was purchased in 1952 it was mostly abandoned pasture growing fair hay, with some swampy areas and a good young sugar bush. The first development was to build a 2½ acre pond and stock it with trout. All members of the family love to fish. This pond is the focal point for recreation for them—and to extend its use, in 1954 a cabin was built and a picnic area developed.

The next step was to develop a small maple sirup operation. Starting in 1955, more than 750 buckets were hung, and the existing woods were thinned, having in mind fuel for the sap house. Some logs have been cut for farm lumber, and inasmuch as pasture was needed for the farm operation, little reforestation has been done.

As a result of this multiple use of the land, the Skinners have a swimming, picnicking and fishing area that is used nearly every day during the summer by some of the family. In the autumn and early winter, hunting occupies much time, and additional income has come from the pasture and woodland. This hill land is an asset to the town, also, for it contributes taxes even though it requires no expensive services since the land is not occupied the year round.

More Uses

Another use for obsolete farm land is by people who want to live in the country where space is not at a premium, and where the owner can be "king of all he surveys", or at least a "baron." Here the obsolete farms come into their own, for, although our operating farms have decreased in number, the land — and often the buildings — are still there for family use and development. Often the dollar goes farther there than for comparable living quarters in town.

When the Ed Parsons family of Windsor, New York, bought their 115 acre farm in 1954, the fields were bare, and there was an unbroken view from one end of the farm to the other. The stream on the prop-



Camping for the payment of a fee is available at the Willowwood Camp; Mrs. Gordon describes the facilities.

(Continued on Page 20)

Here's the *Amazing* New Hospitalization Plan Folks Everywhere Are Talking About

This unique plan for non-drinkers pays you
**\$100.00 cash (tax free) for every week you are
in the hospital . . . from the very first day . . . even for life!**

HERE'S a plan that gives you peace of mind and freedom from money worries when sickness or accident strikes. The Gold Star Policy will pay you \$100.00 weekly, from your first day in the hospital, even for life!

GOLD STAR REWARDS NON-DRINKERS
If you are carrying ordinary hospitalization, you are naturally helping to pay for the accidents, illnesses, and hospital bills of drinkers. Alcoholism is our nation's No. 3 health problem, ranking immediately behind heart disease and cancer.

Statistics show that those who drink are sick more often, and for longer periods, than those who don't drink. Until now, your insurance cost as much as theirs. Now, with rates based on the superior health records of non-drinkers, Gold Star rewards you instead of penalizing you for not drinking, by offering you lower premiums.

Remember, one person in every two families will be hospitalized this year. A sudden fall, a spell of illness, or an operation could put you or one of your loved ones in the hospital for weeks, perhaps months, and could cost you hundreds, even thousands of dollars.

COMPARE THESE GUARANTEED BENEFITS:

NO AGE LIMIT. Same liberal benefits whether you are 1 or 100!

GUARANTEED RENEWABLE. Only YOU can cancel your policy. Your protection continues as long as you live!

NO WAITING PERIODS. Full benefits go into effect noon of the day your policy is issued. And Gold Star pays from the very first day you enter the hospital.

NO SALESMAN WILL CALL. Policy is mailed to your home. Claim checks are sent air mail special delivery, directly to you, and can be used for rent, food, hospital, doctor bills—any purpose you wish!

GOOD ANYWHERE IN THE WORLD. Gold Star has satisfied policyholders in all 50 states and in many foreign countries.

YOU PAY ONLY FOR PROTECTION. No policy fees; no enrollment fees; no membership dues!

ADDITIONAL GOLD STAR BENEFITS

Pays \$2000.00 cash for accidental death.
Pays \$2000.00 cash for accidental loss of one hand, or one foot, or sight of one eye.
Pays \$6000.00 cash for accidental loss of both hands, or both feet, or sight of both eyes.

ONLY CONDITIONS NOT COVERED

Every kind of sickness and accident is covered, except hospitalization caused by use of alcoholic beverages or narcotics, preexisting conditions, mental or nervous disorders, any act of war, or pregnancy. Everything else IS covered!

CAN YOU AFFORD TO BE SICK?

Can you afford a long siege in the hospital, with costly but necessary doctors' bills, expensive drugs and medicines? Many people lose their savings, their ears, and even their homes trying to meet these ever-increasing costs. Don't take chances with your financial security, your future. Remember—once the doctor says it's your turn to enter the hospital, it's too late to buy coverage at any price!

LIFE PROTECTION—NO AGE LIMIT

Your Gold Star policy can never be cancelled by the company, no matter how long or how often you are sick. Your protection is guaranteed for life. Only you can cancel. And the present low rate can never be raised as you grow older, or have too many claims, unless there is a general rate adjustment up or down for all policyholders!

Why not get the peace of mind and freedom from worry this amazing low-cost hospitalization plan offers? Send the coupon now for full information by mail. No salesman will call on you, now or ever. Since there's no obligation, why delay?

Happy Policyholders Write:

Edgar A. Worcester, Ellsworth, Maine

"My thanks and appreciation for the settlement of my claims. I am happy to recommend the De Moss Associates as a reliable Company which settles all claims promptly in accordance with the provisions as stated in the policies."

Mildred Baker, Windsor, Vermont

"May I extend my appreciation of your service. I have been in the hospital three times this year and today I have received the third check from you. Again, thank you, and I'm very glad I took out my Gold Star policy when I did."

Chester W. Parmley, W. Somerville, Massachusetts

"A recent accident sent me to the hospital for five days. Within a few days, after filing claim, I received my check from De Moss Associates. It was a great blessing to me, inasmuch as my income had ceased and all my money was being paid out. I shall ever be an enthusiastic supporter of the Gold Star Plan."

Mrs. Floyd Franks, Walton, New York

"The sum of \$1,642.83 I received while in the hospital for over four months with a broken leg was very much appreciated and helped out a lot. I think your insurance is a very good one and would recommend it to non-drinkers."

Mr. David P. Gaines, Waterbury, Connecticut

"I am a new member of your insurance family, but you were prompt in processing my claim for Mrs. Gaines' illness. I am fully satisfied with your handling of the matter. Thank you very much."

SEND NO MONEY!

We will mail your policy for
your FREE EXAMINATION

No salesman will call. In the privacy of your own home, read the policy carefully. Have it checked by your lawyer, your doctor, your friends or some trusted advisor. Make sure it provides exactly what we've told you it does. Then when you have

convinced yourself, beyond any doubts, that this policy is everything we've claimed for it: . . . mail us your first premium. You have everything to gain and nothing to lose, by mailing your application immediately!

APPLICATION FOR Gold Star Total Abstiners' Hospitalization Policy

Name (Please Print) _____ **0-1-0251-013**

Street or RD# _____

City _____ Zone _____ State _____

Date of Birth: Month _____ Day _____ Year _____ Height _____ Weight _____

My occupation is _____ Age _____

My beneficiary is _____ Relationship _____

I also hereby apply for coverage for the members of my family listed below:

NAME (Please Print)	AGE	HGHT.	WGHT.	BENEFICIARY
1. _____				
2. _____				
3. _____				

To the best of your knowledge and belief, do you or any person applying for coverage now have, or have you or they ever had any physical defect or deformity, high or low blood pressure, heart trouble, diabetes, cancer, arthritis, or tuberculosis; or have you or they, within the last 5 years, been disabled by either accident or illness, had medical advice or treatment, taken medication for any condition, or been advised to have a surgical operation? ☐ Yes ☐ No

If so, give details stating person affected, cause, date, name and address of attending physician and whether fully recovered: _____

Neither I nor any other person listed above uses alcoholic beverages, and I hereby do apply for a policy with the understanding that the policy will not cover any conditions existing prior to the issue date, and that it shall be issued solely and entirely in reliance upon the written answers to the above questions.

Date: _____ Signed: **X**
Form GS 713-3

HERE ARE THE LOW MONTHLY GOLD STAR RATES

Each person age 0-49 pays	\$4.
Each adult age 50-69 pays	\$6.
Each adult age 70 and over pays	\$8.

THE GOLD STAR PLAN is underwritten by the following leading companies, (depending upon your state of residence):

Guarantee Trust Life Insurance Company
Chicago, Ill.

National Liberty Life Insurance Company
King of Prussia, Pa.

Old Security Life Insurance Company
Kansas City, Mo.

SEND NO MONEY NOW

MAIL THIS
APPLICATION
TO

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Outstanding Leaders Say:



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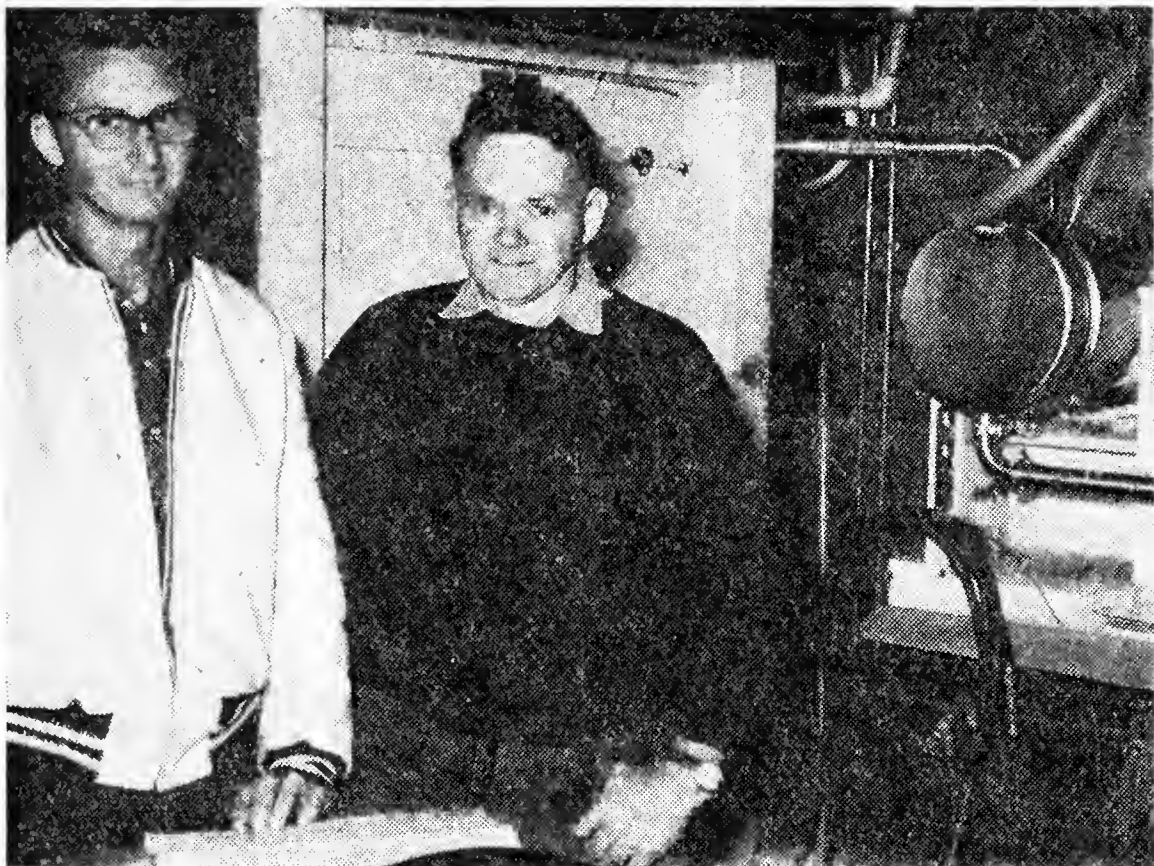


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JEROME HINES, leading bass with the Metropolitan Opera Company: "The non-drinker is a better risk and should be entitled to a better insurance rate. I am most happy to recommend this low cost Gold Star Policy. It should prove to be a real help and blessing to all who can qualify."

**Gold Star is the only hospitalization plan recommended and
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John Miller (right) goes over plans with farm credit representative Roger Long.

Produces 242 Tons Of Milk Per Man

By James Bodurtha*

JOHN MILLER, Otego, New York, is receiving justified acclaim for outstanding improvement in the productivity of his registered Holstein-Friesian dairy herd. In 1947-48, Miller's first full year on DHIC test, his 34 cows averaged 8,456 pounds of milk and 355 pounds of fat. His most recent DHIC annual record, completed in April, was 16,318 pounds of 3.9 percent milk from 33 cows. Otsego County DHIC recently presented John Miller with a special award for "steady progress in dairy herd improvement." Milk productivity of the herd has increased an average of more than 550 pounds per cow per year.

Income above feed cost in the Briar Creek Farm herd for the 1961-62 test year amounted to \$465 per cow and \$13,800 per worker. With only himself and a **tenth** of another worker—Delhi Agricultural Institute student Curtis Flack and his brother, high school student Vern, help John on Saturday and Sunday mornings—Miller's total annual production of 533,600 pounds of milk came to 485,000 pounds per man. This compares with a State average of 140,000 pounds per man.

Professor L. C. Cunningham of Cornell University, in his report on a study of 762 dairy farms in New York's Oncida-Mohawk region, said: "Labor efficiency measured by amount of milk sold per man tells more about the success of a dairy farm than any other factor. There is a close and positive relationship between labor efficiency and labor income. On the average, fifty thousand pounds additional milk per man meant \$1,500 additional labor income." In his study, farmers with 20-39 cows selling close to 300,000 pounds of milk per man averaged \$4,500 annual labor income; similar output on farms with 40-59 cows gave an average labor income of \$6,500.

High Average

In April, the Briar Creek Farm herd, including dry cows, produced an average of 50.9 pounds of milk daily; one cow peaked at 104 pounds of milk per day. John milks his herd twice a day, and not long ago discontinued using one type of milker because "the pails were too small."

Several things help to account for 43-year-old John Miller's dairying productivity, for one thing well-selected foundation stock. When John went into partnership with his father in 1946, he purchased several top quality Holstein calves from neighboring breeder Burton Hoyt. Thereafter he raised only calves sired artificially through NYABC service and out of the best registered Holstein cows. By 1952 the Briar Creek herd was entirely registered, and every cow today was bred and raised on this farm.

Miller's replacement and breeding program has a bearing on his herd's high production

records, too. He selects calves from only the most promising and productive cows to raise each year. Started on whole milk and grain, at heifer age they are reared entirely on pasture and roughage. Miller then **breeds heifers so as to calve at about three years of age**; he wants first-calf heifers to produce at least 400 pounds of fat.

The 400 pound first-calf standard is not the sole basis for culling at Briar Creek Farm. Dairy type counts, too, particularly in well-attached udders and good feet and legs.

Feeding

Feeding helps account for Briar Creek herd's outstanding milk production. Miller feeds corn silage the year 'round, plus green silage and field-conditioned hay in winter. He provides a 16 percent protein grain mix according to monthly recommendations made on the DHIC-IBM report. He has used bulk feed since 1947, which he feels saves labor **and** money, and feeds a maximum of 30 pounds of concentrates per cow per day.

In April, when milk yield averaged almost 51 pounds daily, Miller fed an average of 18 pounds of grain, a ratio of almost three to one. Hay consumption averaged 12 pounds daily and silage intake 44 pounds. Rate of daily roughage feeding came to just over two pounds of hay-equivalent per hundred pounds of bodyweight.

In winter, Miller feeds corn silage and grain before milking morning and night. The cows receive grass silage upon coming in from their morning turnout, followed by second-cutting hay during the day. John gives the cows first-cutting hay after milking at night. The morning turnout in barn season is mandatory in Miller's system of herd management as one of the chief means of maintaining the desired 12 to 13 month calving interval.

Capital

Capital equipment plays an important part in Miller's ability to produce more than 265 tons of milk annually with virtually only his own labor. When he lost his hired man in 1957, he chose to replace him not with another man but with a barn addition and labor-saving equipment. John borrowed funds from the Ononta Production Credit Association to construct a 45 foot barn extension, and to install a gutter cleaner, two silo unloaders, steel milk pipeline, dumping station, and a bulk milk tank.

The concrete block extension enabled John to keep all cattle in one building and reduced the time and labor required for tending younger stock. The barn has 49 ties now, with milking facilities for 36 cows. Miller constructed his new cow stalls 5 feet wide and from 5½ to 6 feet in length. He made the stanchion platforms for two-year-olds 4 feet wide; for yearlings, Miller chose 3 feet widths and various lengths.

John anticipated that he could retire the Production Credit construction loan in five years on savings from hire of labor; he surpassed his expectations.

Roughage Program

Miller's quality roughage program helps push milk production up. Hay and grass silage, direct-cut and with a preservative added, come from fields seeded half and half to Narragansett alfalfa and Climax timothy. John top-dresses these with 300 pounds of 0-15-30 fertilizer after first and second cuttings early in June and July. He makes corn silage from 12 acres of the Cornell M-4 variety, heavily manured and fertilized with 350 pounds of 12-12-12 fertilizer per acre. Corn is sprayed with Atrazine to control weeds.

Crop rotation at Briar Creek Farm presently runs corn for three to four years, then oats with alfalfa-grass for three to four years more. Miller combines oats for use in a special 16 percent protein mix to supplement the commercial dairy ration in summer and early fall. He re-seeds three to six acres of land for forage production each year.

John separates pastures into three lots by electric fences, and practices rotational grazing. Adequate pasture and roughage is grown, plus oats, for his 57 head herd on 54 tillable acres of his 172 acre farm.

Extras

Since his labor-saving construction and equipment program of 1957, John Miller has installed cow trainers and rubber cow mats in his dairy barn. He finds that the cow trainers definitely keep cows cleaner, save on labor and bedding, and cut down on mastitis, too.

Before installation of the rubber cow mats, Miller used ashes on the platforms to prevent slipping. The cow mats have overcome this problem, and also reduced the need for old hay bedding. "With cow mats," says John, "I wouldn't really need any bedding at all."

Things are indeed important to the milk production success of John Miller; new machinery and methods are the modern tools of his trade. But there is an **extra something** that makes his whole farm operation and business succeed exceptionally well—the extra measure of attention and care he applies to herd and farm management as manager and sound dairy husbandman.

Evidence of his success lies not only in the outstanding production and profits of the dairy herd; it can be seen in his community standing, his own gracious manner, and in his and Mrs. Miller's happy family life with their teenage daughters, Linda and Pauline.

"He is definitely one of the better dairymen," comments Sam Price, manager of the Borden Company dairy plant in Otego, where the Briar Creek Farm milk is marketed. "He's a gentleman and a farmer!"

* Agricultural Consultant

new

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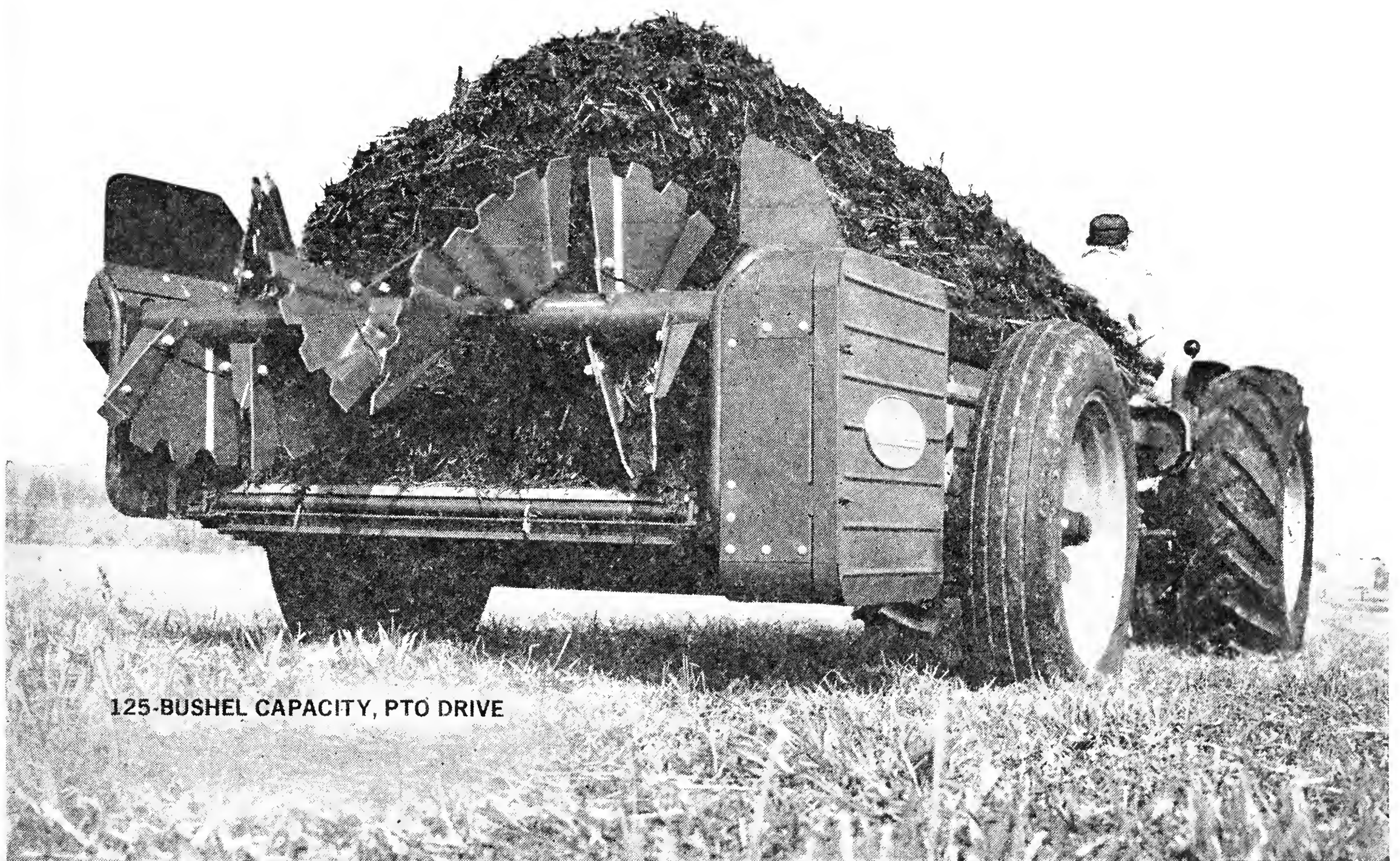
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THIRTY TWO NORTHEASTERN 4-H'ers WIN HONORS

They are among the 1500 boys and girls who attended the annual 4-H Club Congress in Chicago which was sponsored by the Cooperative Extension Service.



NEW YORK Seventeen New York 4-H'ers have been named national winners. Fifteen of the young people received \$400 scholarships, one received an expense-paid trip to the event and another received a \$1,600 scholarship. Attending the Congress are (front row, l. to r.): Sharon Sibble, 20, Cazenovia—home economics program sponsored by Montgomery Ward; Kathleen Scott, 17, Amsterdam—home improvement—sponsored by The Sperry & Hutchinson Company; David Emo, 21, Arkport—leadership—sponsored by the Sears-Roebuck Foundation; Jerry Mickelson, 18, Newfield—tractor program sponsored by American Oil Foundation; Lonnetta Swartout, 17, Antwerp—dairy foods demonstration program sponsored by Carnation Company. (Middle row): Robert Smith, 19, Gasport—electric program sponsored by Westinghouse Educational Foundation; Robert Murdock, 18, Hartwick—entomology program sponsored by Hercules Powder Company; Anne Holdridge, 18, Margaretville—foods-nutrition program sponsored by General Foods Corporation; David Baker, 21, Richville—forestry program sponsored by American Forest Products Industries, Inc.; Carol Ammann, 18, Cazenovia—health program sponsored by Eli Lilly and Company. (Back row): Veronica Vamosy, 20, Stamford; Robert Bassett, 20, Valley Falls, winners in the achievement program sponsored by Ford Motor Company Fund; the trip winner Jay Seeley, 16, Oneonta—beautification of home grounds program sponsored by Mrs. Charles R. Walgreen; Mary Louise Will, 17, Eden—bread demonstration program sponsored by Standard Brands Incorporated; Janet Detch, 17, Bullville—clothing program sponsored by Coats & Clark, Inc., and Phillip Bennett, 19, Hornell—dairy program sponsored by Oliver Corporation. Not present was Robert Bryant Jr. of Manlius who was awarded a \$1,600 forestry scholarship given by Homelite, a division of Textron Inc.



PENNSYLVANIA Four Pennsylvania national 4-H winners (l. to r.) are: Marjorie Cochran, 16, Beaver Falls, winner in the beautification of home grounds program sponsored by Mrs. Charles R. Walgreen, and William Rishel, 17, of York, winner in the beef program sponsored by E. I. duPont de Nemours & Company. Miss Cochran's award is an expense-paid trip to the Congress. Rishel receives a \$400 scholarship. Also, Betty Ann Bodman, 20, Catawissa, winner of a \$500 home economics scholarship given by Pyrofax Gas Corporation and Shirley Bair, 18, Littlestown, winner of an \$800 4-H scholarship provided by the Edwin T. Meredith Foundation.

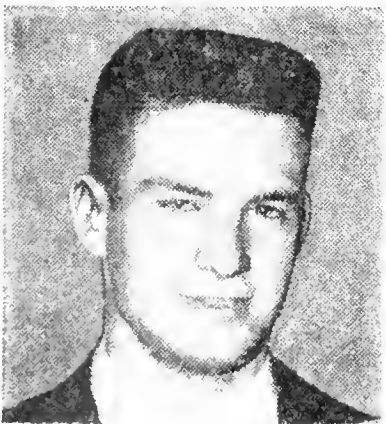


MASSACHUSETTS Five Massachusetts 4-H'ers received \$400 scholarships. The winners are (l. to r.): Patricia Hutchinson, 18, Beverly—clothing program sponsored by Coats & Clark Inc.; Walter Rossbach, 20, Townsend—field crops program sponsored by Arcadian Products Department, Allied Chemical Corporation; Edward Sauer, 18, West Brookfield—garden program sponsored by Allis-Chalmers Manufacturing Company-Farm Equipment Division; Phyllis Brooks, 18, Auburn—safety program sponsored by General Motors, and Robert Taylor Jr., 19, tractor program sponsored by American Oil Foundation.



NEW JERSEY

Donald Gantz, 17, of Princeton, N. J., has been awarded a \$400 scholarship as a national winner in the automotive program sponsored by The Firestone Tire & Rubber Company.



MAINE

Brian Young, 18, East Holden, representing Maine, has been awarded a \$400 scholarship as a national winner in the agricultural program sponsored by International Harvester Co.



MARYLAND Four Maryland 4-H'ers received \$400 scholarships. (Left to right): Anne Breidenbaugh, 20, Glenarm, winner in the canning program sponsored by the Kerr Glass Manufacturing Company; Margaret Nicholson, 20, Detour, winner in the dairy program sponsored by Oliver Corporation; Patricia Ann Beard, 20, Edgewater, winner in the leadership program sponsored by the Sears-Roebuck Foundation and James Wightman, 20, Gaithersburg, winner in the swine program sponsored by Moorman Manufacturing Co.

4-H 4-H 4-H 4-H 4-H 4-H 4-H 4-H 4-H 4-H



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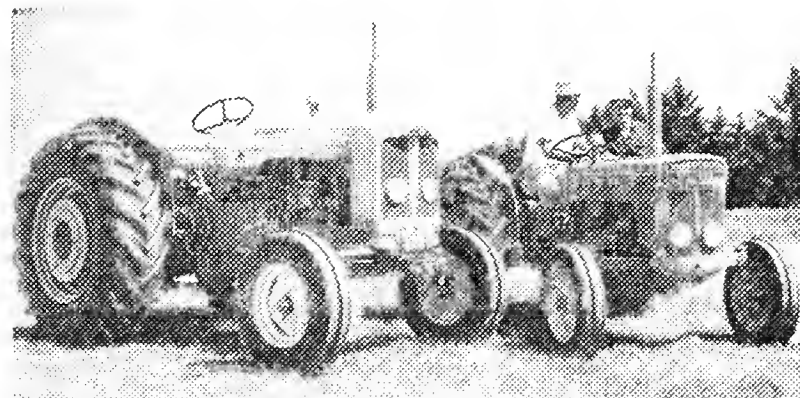
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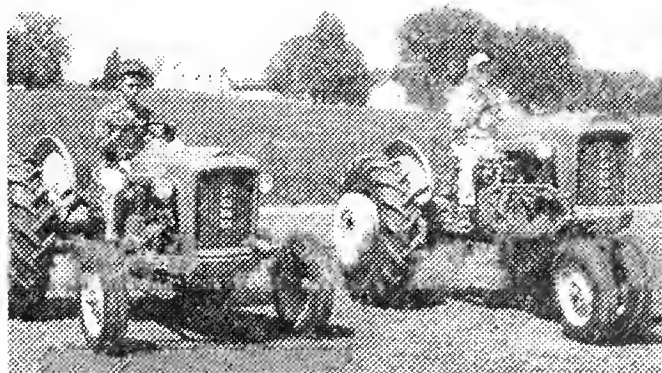
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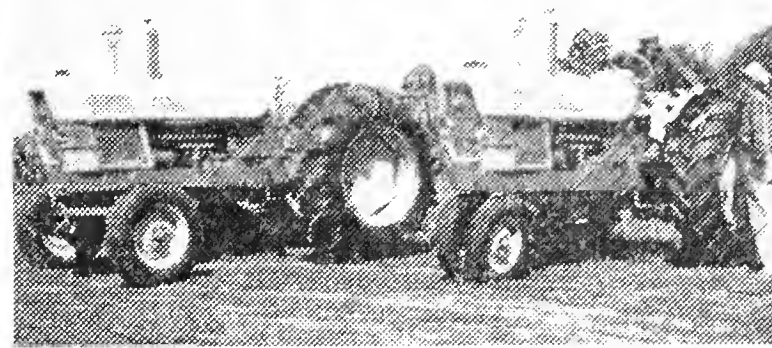
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Available only at your GLF Service Agency. Where else could you get such a buy? Cooperative GLF Exchange, Inc., Ithaca, N.Y.



GLF QUALITY CONSUMER PRODUCTS



One of the trucks that collect "taste tested" milk.

Taste Tested Milk

By GORDON CONKLIN



Dairyman Charles Alexander checks his latest milk "report card."

BETTER tasting milk has been much discussed in recent years; a 45 member producer cooperative near Cortland, New York is doing something about it! These dairy-men, organized under the name of Cortland Bulk Milk Producers Co-operative, Inc., voluntarily okayed a "Quality Milk Program," including a monthly report card that tells each one how he's doing. An annual "Plaque of Excellence" is also awarded to the outstanding producer, as determined by the monthly report cards plus a flavor test conducted quarterly.

Cortland County agent Ira Blixt arranged for help with the taste test from Cornell University dairy specialists Bob Holland and Jim White. Now it may be news to many dairymen that a formal score sheet exists for rating any milk sample according to its taste. People with trained taste buds can accurately assign milk a score which indicates its acceptability by the general public. It's a bit like the wine tasters we've heard so much about—except the milk taster can still walk home after a day's work!

Bob Holland, who heads Cornell's Department of Dairy and Food Science, was elated by the request for help with taste testing because it was the first time producers had asked for such assistance—although many milk dealers had done so over the years. He and his associates set to work to teach the cooperative's members—and their wives—the way to scientifically appraise the quality of milk. In this way, producers themselves become more taste conscious and at the same time they set the standards for the "Plaque of Excellence" award. Howard Whitmarsh, chairman of the quality control program, picks the day when a group of trained producers taste test samples, coded so none of the testers know who produced what sample.

The report cards already mentioned show bacteria test results, both Standard Plate Count (raw milk) and Thermoduric (pasteurized milk), as well as sediment ratings and tests for antibiotics. A blue, yellow, or red card accompanies each producer's monthly milk check,

(Continued on Page 21)



Here are some members of the Cortland Bulk Milk Producers Cooperative learning how to score milk by taste. Left to right: Stanley Connelly, Virgil; Mrs. and Mr. John Casey, Fabius; and Howard Whitmarsh, Cuyler, who is chairman of the Cooperative's quality control program.

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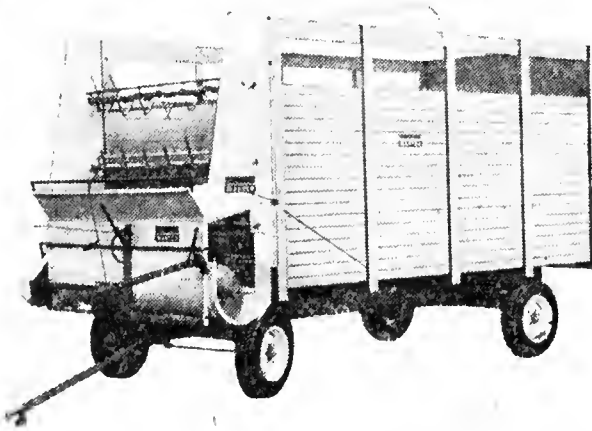
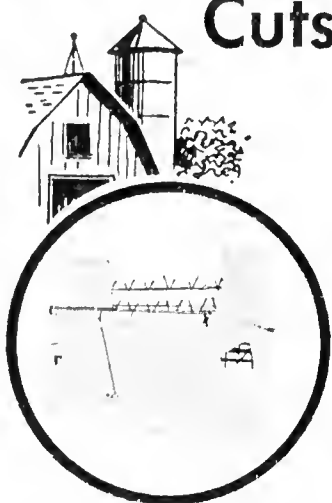
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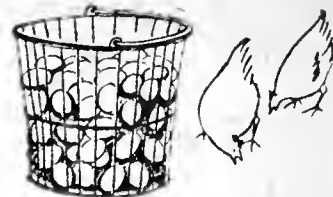
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Let's Talk About Eggs



BBETTER YET, let's listen in while a poultryman and his wife talk about eggs—and their poultry business in general. They have just finished a big breakfast (ham and eggs, of course), and are visiting over their second cups of coffee.

Man: Can't see why the egg price is dropping. At the meeting the other night all the producers I talked with said they aren't getting as many eggs as last year. Some big shot must be playing the market! It's got to be something other than supply and demand. If this keeps up we'll have to do something; everything's going up in price except eggs!

Wife: Do you really think poultrymen are producing fewer eggs?

M: That's what they said at the meeting.

W: Do you think they really know?

M: (picking up a poultry magazine) They ought to; they've been in business a long, long time. Now look at this story of a poultryman producing eggs for 34 cents a dozen! Who does he think he's kidding? I wish they'd write about an honest farmer once in a while!

W: What does it cost us to make eggs?

M: Well, more than 34 cents, I can tell you that.

W: How much more?

M: Oh, a few cents. It doesn't make any difference how much more — I know it can't be done for 34 cents.

W: What cost doesn't he have that we do?

M: He has the same costs. We all have the same — the birds have to eat, he's got to buy chicks, pay light bills, and all that.

W: That reminds me, the electric bill seems awfully high; I forget what it was last year. Do you remember?

M: Heck, no. I've got more important things to think about. It's just like I told you—everything keeps going up—and this guy says 34 cents to produce eggs!

W: Well, some of his costs must be lower.

M: Lower!! How can they be lower when everything is going up?

W: At the poultry meeting last week that fellow from the college said something about eggs per bird being a big factor in cost of production. Didn't he say that an extra dozen eggs per bird reduced costs by about 2 cents a dozen?

* Prepared by Harry C. Wheldon, Jr., University of Maine, and Jonathan S. Tobey, Cornell University

M: Yeah—fancy figures sound good at meetings. But when you get home it's a different story. Another dozen eggs! What do they expect you to do—squeeze the hens once a month?

W: He said something about 240 eggs per hen housed. What's hen housed?

M: I don't know—the hens in the house, I guess. Where else would they be? No one around here has them on range any more. Remember when we had laying shelters on the ranges? Did pretty good, too.

W: Yes, it does seem that we made good money then. Why did we get rid of those shelters?

M: Seemed like everybody else was getting away from them—probably didn't pay as well as in houses.

W: Didn't it pay us?

M: I don't think so — anyway, everybody was getting away from them.

W: Is it usually best to follow everyone else?

M: Might just as well!

W: How does everyone else know?

M: Oh, they can tell. Some of them probably keep some sort of records.

W: But you don't!

M: No, but I know pretty well what's going on; I can tell when production is going down without counting eggs; after a while you can tell by the egg baskets.

W: I'm sure you can. But what about feed per dozen eggs — or eggs per bird — or the difference in egg sizes — and things like that?

What was that chick salesman talking about the other day — he seemed to be able to back up his talk with figures and

records of egg laying tests? You didn't seem to know what our flock was doing.

M: Oh, they need all those fancy figures to sell their chicks; we can sell our eggs to plenty of dealers. We don't have to tell them all about how much feed it took to produce them.

W: That's right—but we do have to buy the feed. By the way, did you buy the rat poison?

M: Not yet; but I killed a couple this morning in the feedroom. They won't give us any more trouble — and those two didn't affect our egg costs very much anyway.

W: I wonder what our feed costs per dozen are?

M: Now you sound just like that college fella. What does he care, anyway — he's not raising hens!

W: But if you don't know what the

(Continued on Page 23)

ROBSON



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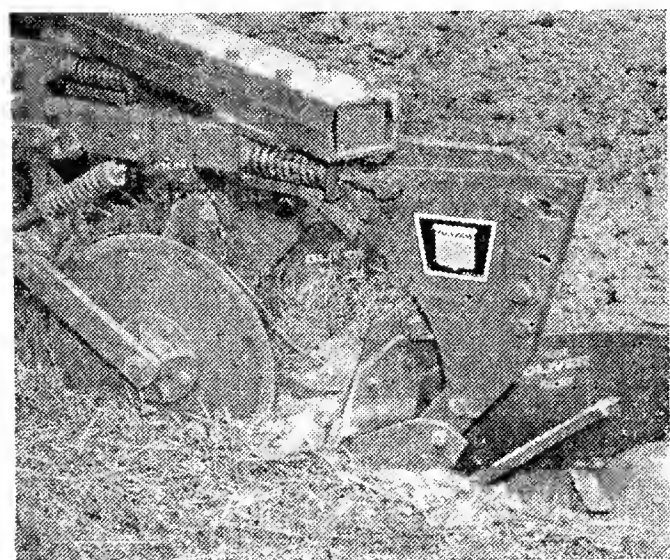
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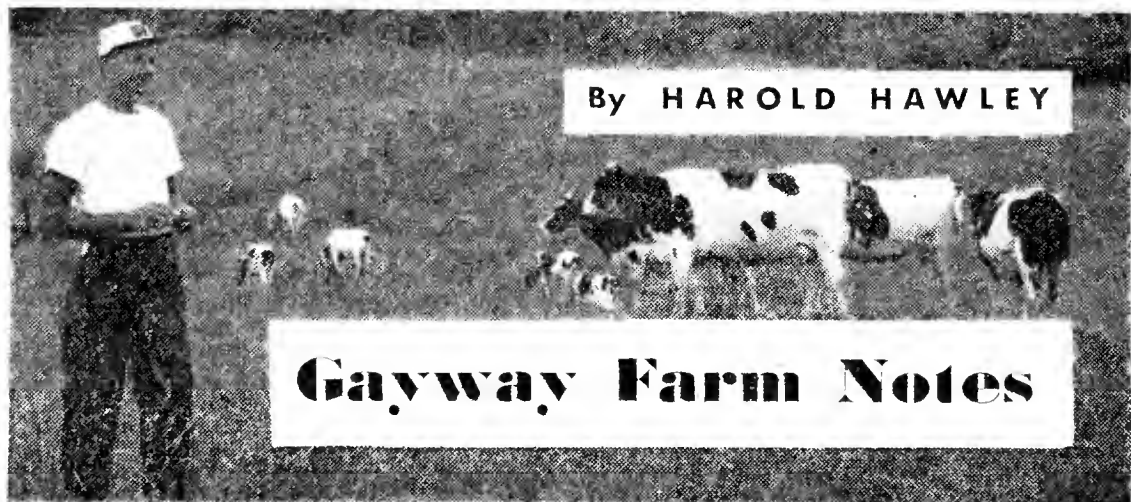
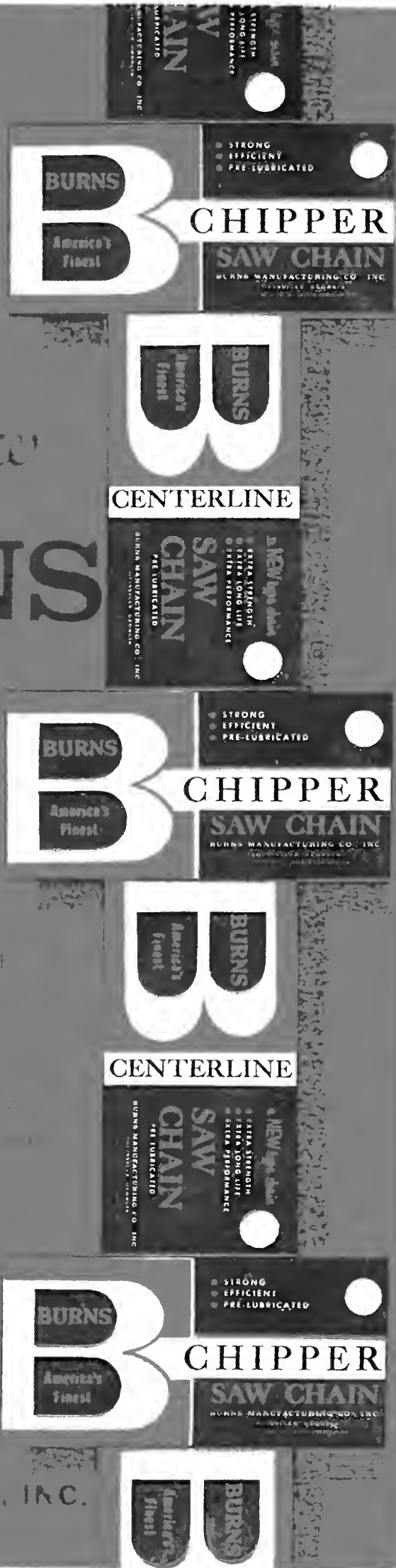


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By HAROLD HAWLEY

Gayway Farm Notes

DECISION TIME IS HERE!

WE DECIDED here at Gayway a long time ago that there is no acceptable substitute for the market place as a guide to what is wanted and needed from producers. We accept, without reservation, the notion that the millions of private economic decisions being made independently of each other with the expectation of profit will best serve the society in which we live. This is, of course, at the very heart of our private enterprise competitive system which, so far as we are concerned, is the one basic reason why this country has grown and prospered so much more than others.

The opportunity has been given us in the last several years to compare the results when central planning and control have replaced private decisions made in response to market conditions. Being unable to find a single illustration of a government agricultural program (centralized planning) solving a problem, or doing other than changing the nature of the problem (not to mention the cases where the problems have been greatly aggravated), my faith in independent private economic decisions has continued to grow.

Standards

We feel that any proposal for solving the ills of agriculture should meet at least three standards:

1. Retain freedom and flexibility of individual producers to decide for themselves.
2. Retain competition in the industry, which means not only between and among producers — but the kind of competition that sees some prosper and grow and others leave the industry.
3. Retain opportunity of entry into the industry at any time for anyone regardless of his "history."

It's probably not surprising that proposals for production quotas, supply management, or whatever title, fail to win my support. I simply do not see the need for such programs or how they can benefit us, but see them as a definite threat to opportunity and prosperity.

My plea is that we all take a long look at the future under the two systems—government controlled or a free enterprise competitive situation. This is a better guide to which kind of program we should have than the one so commonly used — "it's good or bad depending on whether it catches one with a good or poor base."

In 1959, the dairy industry was in pretty good shape, with a reasonable balance between production and demand. Some members of the dairy industry apparently labor under the notion that all the industry needs to be healthy is to have high prices. They gave the Secretary of Agriculture some very bad advice. Whether he thought higher support prices would help the industry, or whether he thought they would create the problem needed if government was

to get the chance to control the industry, I do not know.

However, the results of higher support prices were exactly what many people said at that time they would be. Production was stimulated beyond needs, and soon the government was back in the business of buying and storing dairy products. Now the situation so foolishly and needlessly (I won't say intentionally) created is being advanced as the reason why we need a supply management program. Talk of possible quotas is adding to production, as individual farmers make sure they have a big base.

Many who seem to be enchanted by the promises and claims made by the proponents of central planning might pause to reflect that those crops not "supported" (and therefore not subjected to quotas or supply management) seem to be in the healthiest condition. This is not surprising.

Producers of these other commodities have been able to exercise their own best judgment and in effect run their own supply management programs in response to prices or prospects. I don't hear a loud clamor from these people for controls or government planning. I suspect they are glad they are producing for the consumer rather than for some government surplus warehouse.

Who Are Friends?

With many people dedicated to the notion that agriculture, and specifically the dairy industry, must be run from Washington, and others dedicated to the notion that we must have higher prices for milk regardless of the outcome, I have come to the reluctant conclusion that there is little room for a "friendly difference of opinion." This is a game we play for keeps. There is no evidence that we ever get out from under government programs once we embark on them.

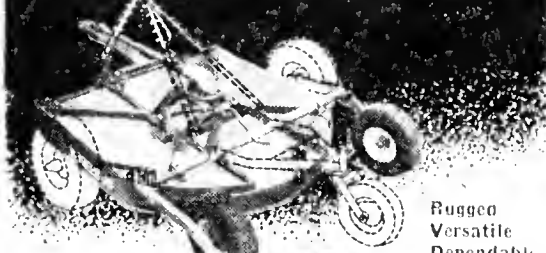
I think we must decide who our friends are on these issues and keep them in mind. This is and should be recognized as being more than a question of how much milk one can produce next year. This is basically a question of whether we will have capitalism or socialism. We therefore remember our friends who believe in capitalism when we are voting for candidates for public office, or for positions of leadership in farm co-ops.

I'm not suggesting that dairy returns are satisfactory. I have more than a mere suspicion that part of the plan to sell us on how badly we need a government program is to keep telling us what bad shape we are in as an industry.

Let's face it — some are making good money at today's prices and some are losing it. Each of us has a responsibility to do all he can to keep costs down. Then if all of us would pull our share of the load on

(Continued on Opposite Page)

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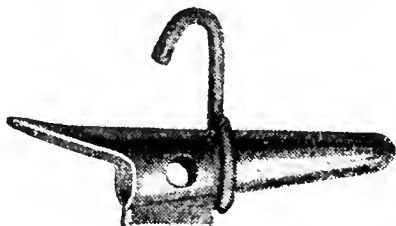
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Gayway Farm Notes

(Continued from Opposite Page)

advertising and promotion we could ease the squeeze a little. Some self help here makes more sense to me than turning, hat in hand, to Uncle Sam—who has a prohibitive price on what he "gives."

INVENTORY TIME AGAIN

One of the real puzzles to us each year is how to inventory ear corn. By January 1, it should be dried out somewhat and settled in the crib. Some years the number of bushels shelled out of a crib will be almost ½ the number of cubic feet of ear corn in the crib January 1. Corn was dry enough in the fall of 1961 to make this work out. However, this year moisture is higher and there are some soft ears mixed throughout. Probably we will do well to shell out 40 percent.

Another headache is valuing cows and heifers. We aren't interested in paper profits or losses due to market fluctuations in livestock prices. We have inventoried our cows at the same figure for years—i.e., \$250 for the best ones; average ones at \$190. The same goes for heifers. A yearling is \$100 each year and calves also are the same, \$50.

This gets pretty unrealistic at times, but it still seems best. This way, changes in total assets and total net worth are mostly due to something other than variation in cow prices. Of course, crops to be sold are inventoried at the market.

NEW CORN PICKER PLEASES


We picked corn this year with a new 2-row mounted picker much improved over the old one we swapped in. We certainly are glad we paid a little extra and got the grease banks. They are worth the extra cost. The shielding and guards are much better on this machine with one exception. We bought it with trash rolls and stalk removers (optional equipment) and these came unshielded. We wrote the manufacturer. It was gratifying to hear them say that they would do something about all new ones as they are made.

I sometimes wonder if we wouldn't help ourselves if we all took the time to write the manufacturers about our reaction to new machines.

TAXES NEXT

Start early, figure carefully, and pray a little!

Actually, the early start can pay off big. In good years, we like to use up some of the income by buying next year's fertilizer, twine, 2,4-D, Atrazine, grease and oil, etc., etc. in December. In other years, these purchases can wait.




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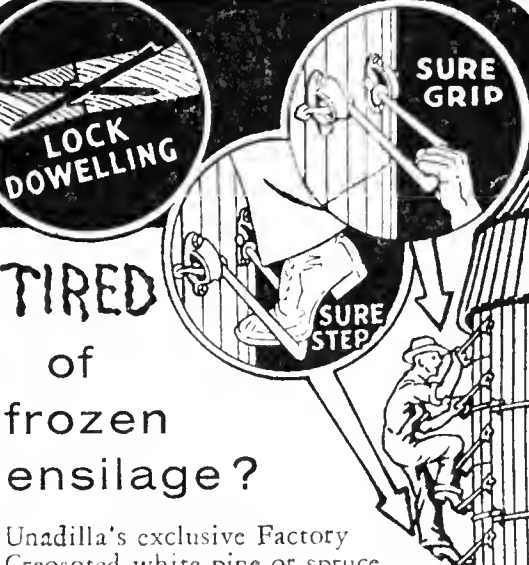
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1963 CATALOG now ready

Canadian Experience With Milk Marketing Problems

By D. R. CAMPBELL*

MILK marketing provides one of the most fascinating examples of a problem calling forth a program, but the program producing a second problem, which then calls forth a second program.

Problem One

Consumers want assurance of an adequate supply of high quality milk for fluid use, and producers want

greater gross returns from the sale of a given quantity of milk for this use than if all milk were sold at the same price.

Program One—Price Differentials

It is common practice almost everywhere to sell milk for fluid consumption at a price higher than for manufacture. This practice is followed for two reasons. First, it

Editor's Note — Many Canadian dairymen already sell their milk in markets where milk production quota programs are in existence. Canadian milk production has increased steadily for the last few years; at the same time, per capita consumption dropped 10 percent between 1956 and 1960.

gives first priority to milk of high quality and in adequate amounts to meet the demands of consumers for fluid milk. Second, differential pricing with a premium for fluid milk produces greater gross returns from a given quantity of milk than would be derived from selling all milk at one price regardless of use.

Problem Two

The main problem which arises from differential pricing is one of equity among milk producers. Frequently two neighbors may be producing milk of similar quality and under similar conditions, yet one, with a fluid milk contract, receives almost twice as much per hundred as does the other. This gives rise to a demand on the part of the producers for some kind of pricing arrangement which will result in greater equity of prices.

Program Two—Pooling

In order to reduce some of the inequities among producers and to develop an established procedure for payment, pooling systems are introduced. They may be of three major types: (a) a plant pool, in which all shippers to one plant receive the same blend price for all milk of the same quality; (b) a market pool, in which all shippers to the same milk market (usually one city) receive the same blend price; and (c) an area pool, in which all shippers in a large area embracing several markets receive the same blend price for all milk sold.

Problem Three

Blending of prices for all producers and all milk entering the pool usually results in a serious problem of oversupply. Because all the milk is sold at the same price and because technological and management factors favor larger dairy enterprises, the tendency is for each producer to expand output. Each producer recognizes the fact that the greater the production in total, the lower will be the average price because additional milk must be sold for manufacturing, but there is no incentive for any one producer to limit his output while others may be expanding.

Program Three—Quotas

With increasing production under a pure blend price, the only ways that supply can be controlled is by lower prices to all, or by a system of quotas or bases for individual producers. Under the latter system, familiar in Ontario, a producer receives a high price only for the milk sold within the quota, and a lower price for other milk sold. This helps to control output because each producer now knows that any additional output will not receive a higher (fluid) price, but the low (manufactured milk) price.

Problem Four

Because quotas represent the ability to sell milk at higher prices, and thus to increase the income of the holder, they are widely sought. A problem arises as to the allocation and transfer of quotas.

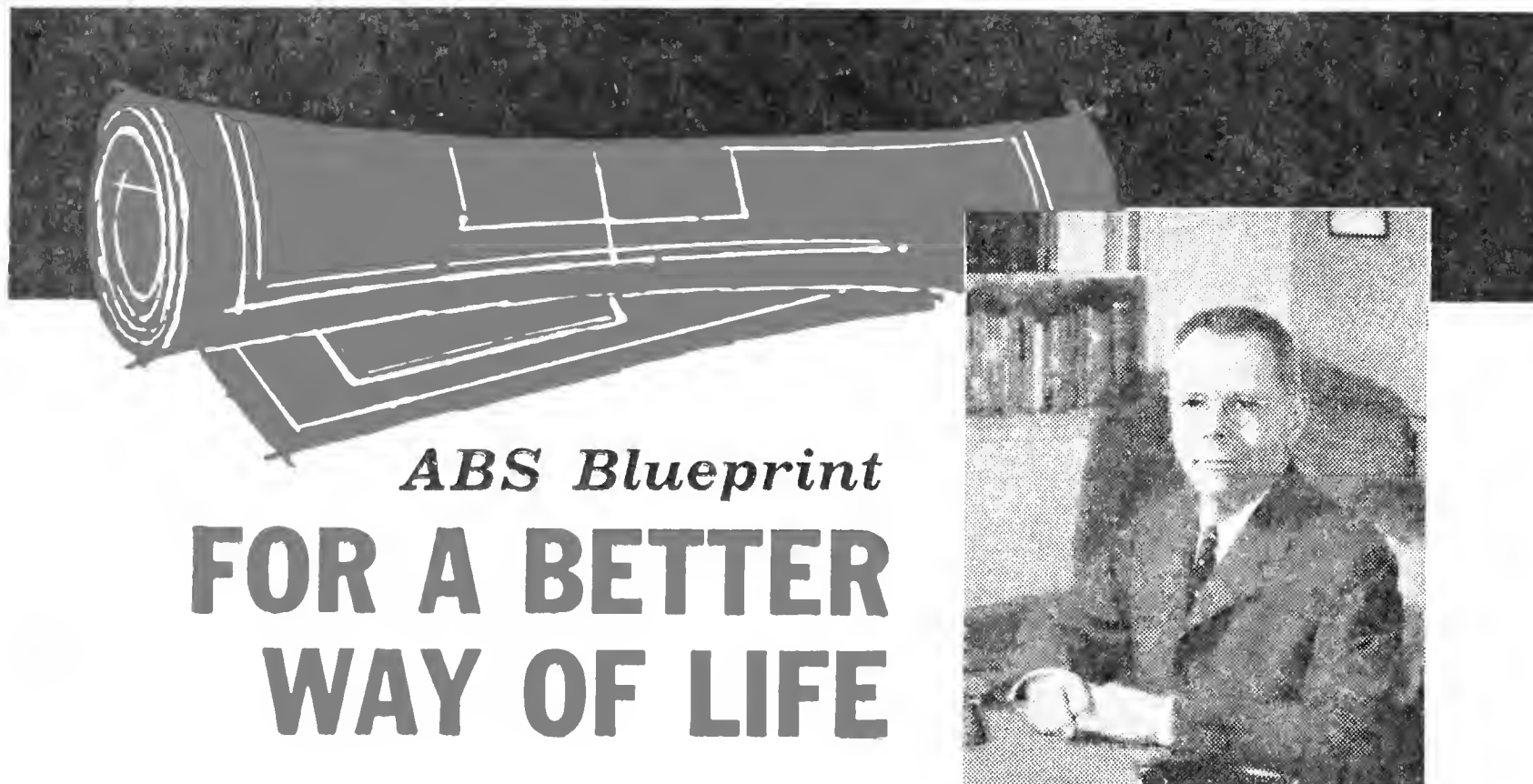
Program Four—Allocation

There are four possible alternative programs in regard to the allocation of quotas:

1. The first is to base them upon production by individual shippers during regular quota setting periods. Depending upon his shipments during this period, each producer would be granted a quota for fluid milk sales, which would be fixed until the next quota setting period.

This introduces a "treadmill"
(Continued on Opposite Page)

*Head of the Department of Agricultural Economics, Ontario Agricultural College, Guelph, Ontario.



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They Chose Loose Housing

By HUGH COSLINE

OCCASIONALLY I hear of a farmer who spent time and money remodelling an old building and who, after the job was done, wished he had torn down the old building and built from the ground up. In some cases it might actually have been cheaper, but perhaps more important is the fact that a remodelled barn



C. F. Sharp and son Clayton.

may still be unhandy and inefficient, thus, in the case of a dairy farm, adding to the cost of producing a hundred pounds of milk.

C. F. Sharp of Oakfield, in Genesee County, New York, did not make that mistake. Some years ago he bought a piece of land on which was an old house. Against the advice of friends, he tore it down and built a new one. Then, in 1958, he and his son Clayton decided to increase the size of the herd, and were faced with the problem of more barn room. The old barn, with room for 25 cows, was not located on the best spot, and it did not lend itself easily to an addition. So a pen stable was built to ac-

commodate 70 cows, and the old barn used for young stock and dry cows. While construction costs entered into the decision, labor saving was the big item which resulted in the decision to go to pen stabling.

The pen stable is U-shaped. On one side is the loafing area, 140 feet long, with bedding stored along one wall. Bedding is added regularly, and the area is cleaned twice a year. Across from it is a feeding area of the same length with baled hay stored along one side and an automatic bunk feeder for corn silage along the other side. The silo has an automatic unloader, and the bunk has a belt which takes the silage the length of the stable.

Between the loafing and feeding areas is a paved barnyard, and between the two areas at one end is a milking parlor and bulk tank. The paved barnyard is cleaned every third day, and the feeding area every day.

The cows are Holsteins, with an average production of around 12,000 pounds of milk. Milkers are given a two month rest period. They are fed up to 24 pounds of grain per cow per day.

I have heard some comments that cows fail to eat their grain during the time they are being milked. Clayton reports no trouble. He says, "If a slow eater has to leave a little grain, she will eat a little faster next time." Incidentally, one man can do the milking in 2½ hours.

If there is any moral to this story it is this. Before you remodel an old building, do some careful investigating. In addition to cash costs, figure which will save the most labor when the job is done.

Canadian Experience

(Continued from Opposite Page)

effect" during the quota setting period, as each shipper expands his sales as much as possible to keep abreast of similar expansion by other shippers. If he expands his sales at the same rate as all shippers do, then his quota increases at the average rate. This system leads to all kinds of undesirable attempts to increase output during the quota setting period.

2. The second alternative is to freeze all quotas as they were at one point in time, and allow no further changes or transfers of quotas. This introduces a rigidity which operates against increased efficiency in production.

The young, aggressive producers find themselves unable to expand their quotas regardless of their level of efficiency and efforts to improve. Over a period of one or two years the effect on efficiency would probably be small, but over a five year period it is very serious.

3. The third alternative is to make quotas transferable among qualified producers, and to let supply and demand determine their price. This has the advantage that it permits adjustments in the size and method of production of individual farms and thus stimulates efficiency. It has the disadvantage that it may result in high market values of quotas; this goes as a windfall gain to the

present quota owners, and it helps to push up costs in the future.

4. The fourth alternative is to develop a system of "marginal pricing" with flexible quotas. As an example, each qualified producer could be granted a quota of 75 percent of his production in the last quota setting period. He would receive top price for milk sold under his quota, but further sales up to 50 percent of his quota he would receive only manufactured prices. For additional sales he would be paid even less than manufactured prices.

For example, let's assume a dairyman's production in the last quota setting period was 1,000 pounds per day. He would now receive top price for 750 pounds per day, manufactured price for the next 375 pounds (50 percent of 750), and an even lower price for any additional daily production.

Quotas would be set each year on the basis of production for a part of the past year. This system has fewer of the rigidities of fixed quotas or windfall gains of transferable quotas, but it would involve considerable expense in administration and would be more difficult to understand.

Obviously all of the alternatives in Program Four leave problems unsolved, one of the most important of which is the entry of new producers into the favored markets.

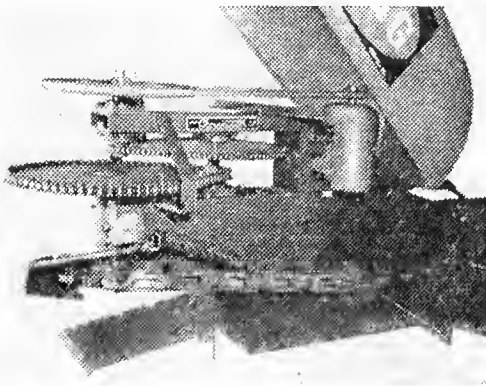
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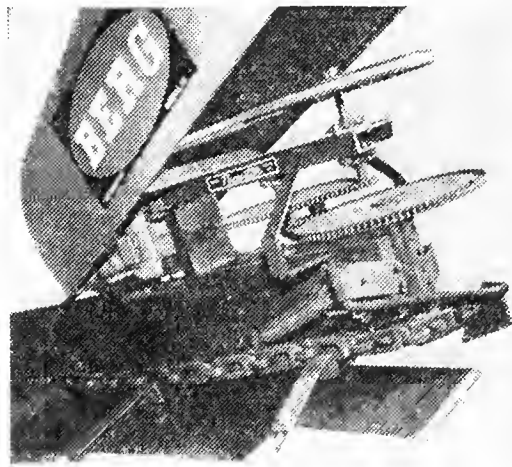
Berg gutter chain is a series of one-piece links hooked end-to-end. This hook-and-eye design makes it easy to remove links... eliminates the need for pins, rivets, and bolts.

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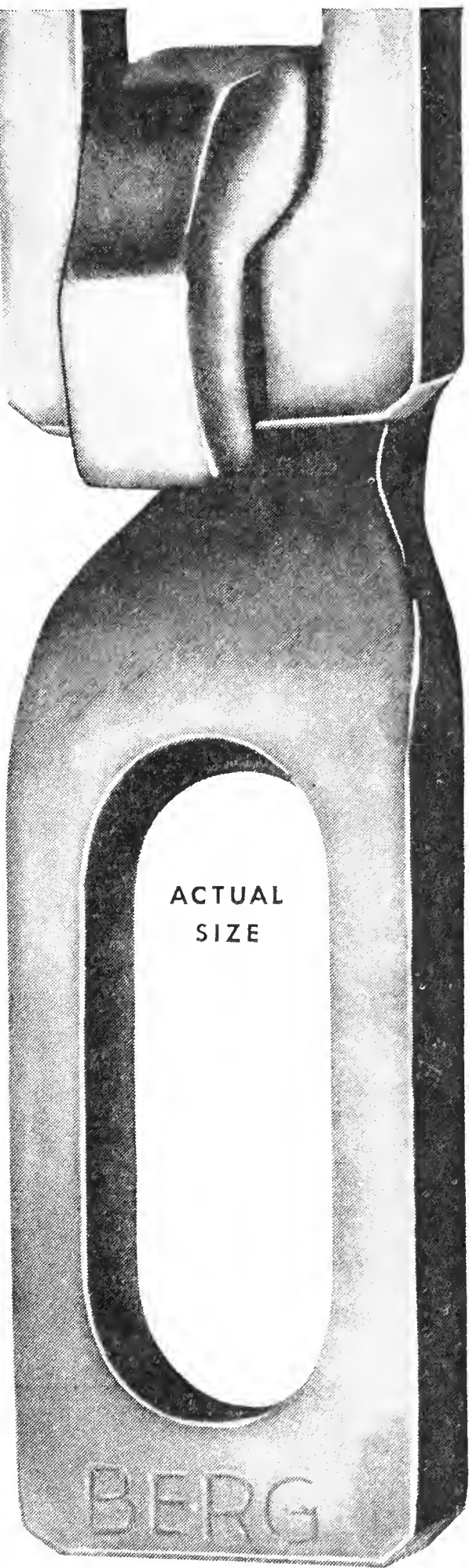
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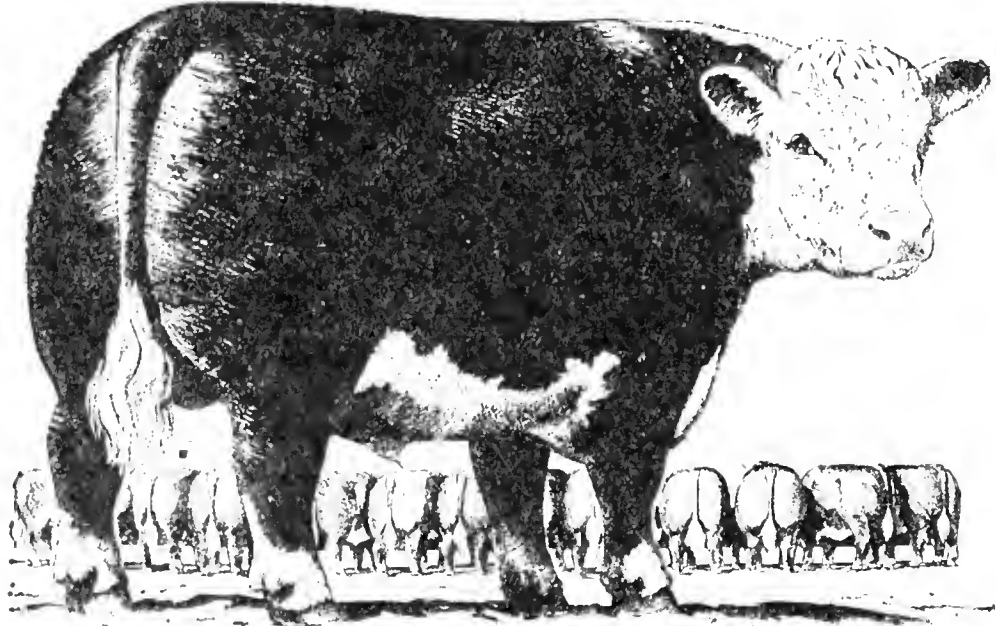
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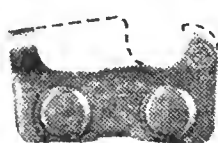
In the same report Herefords were proven to yield significantly more loin, rib and round, with less kidney and fat. Thus the packer and retailer show greater profits from Hereford carcasses.

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Idle Acres!

(Continued from Page 6)

city flowed free of bank vegetation and shade, and the woods were grazed and trampled—no game used the area. But Ed Parsons liked hunting and fishing, and so he developed his place as a hunting domain for himself and his friends. Developments since purchase include remodeling the house, building and stocking a pond, planting 20 acres to trees, planting several hundred wildlife shrubs, rehabilitation of the grazed woodlands, replanting stream banks and pruning and thinning in several acres of older plantations.

Ed has obtained a commercial hunting preserve license, and he and a group of friends have shared costs in raising pheasants and chukars. Improvement of hunting areas by developing food patches of corn and mullet has brought an 80 percent return on 250 released birds, while at the same time more than 25 wild birds were raised on the area. The Parsons and their three youngsters enjoy camping at a cabin they have built in an isolated area.

Is it fun to live in the country? The Parsons say "yes"—if you plan for it! You will find that two cars are practically a necessity.

Recreation

Not all the land holdings are part of farming enterprises or home developments. An example of forestry and recreational development is the land owned by Eddy Foster, Alfred, New York. Several years ago Eddy began picking up hill farm land in the Allegany County plateau section. As soon as acquired, the land was planted to Christmas trees, with profitable returns. After crops were harvested and taxes paid, the profits were plowed back into more land, so that now he has a block of more than 700 acres—and an additional 100 acres is owned by other members of the family.

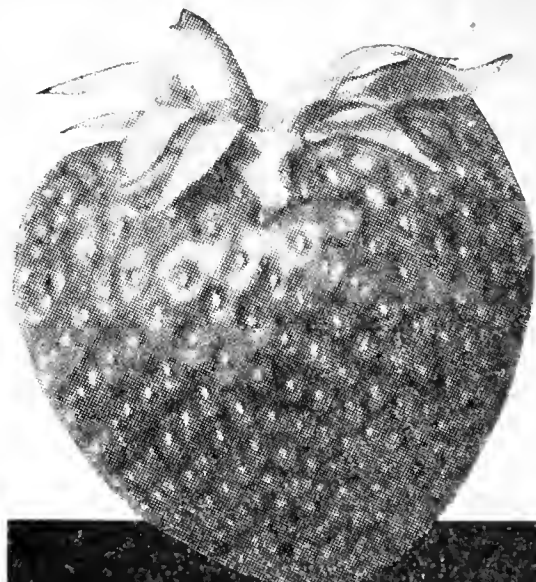
Not all the Foster land is planted to Christmas trees, but a large share is. A large block of existing woodland is periodically harvested under the direction of the New York State Conservation Department Forest Practice foresters. Other large areas were too poorly drained to grow good trees, and on one of these (a 25 acre area) a pond was developed in the early '50's.

As the area became more and more popular for recreation, it was felt that responsibility and development costs should be spread. Consequently, the Foster Lake Club was formed, with a present membership of more than 200 families and individuals who enjoy the club area and shoulder the responsibilities for its upkeep. An initiation fee and annual dues are charged, with money over and above the annual rental fee and cost for upkeep going into capital improvements. Picnic benches and fireplaces, a bathing beach, a wading area for small children, toilets, parking area, and two or three campsites make up the present facilities. A new bathhouse, toilet and laundry facilities are being developed.

No motor boats are allowed on the lake, and each member has a pass card and a sticker for his car. An interesting feature is that there are no garbage cans; the members are mostly day-use people, so they take their garbage back home with them!

Another angle to be explored is typified by Mr. and Mrs. Jim Gordon, Ithaca, New York. When an al-

(Continued on Opposite Page)



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USE Those Idle Acres!

(Continued from Opposite Page)

lery made it impossible for the Gordons to continue to operate their part-time cattle farm of 60 acres, they cast around for alternate uses. Jim had always been interested in camping, had worked with Scouts, and felt that he knew what people like in a camping area. A three-quarter acre pond, open fields, woods, a stream, and the fact that nearby were several state parks with swimming areas, were his assets.

The first year he built fireplaces and tables and graded drives for ten tent or trailer sites. Water was supplied from a pitcher pump, with swimming at the pond and games in the open areas. A successful first year started expansion for each following year, until now there are more than 45 campsites. Often on peak vacation periods such as the Labor Day weekend, you will see more than 50 families in the campsite. Many come from a considerable distance (even Europe) though many others come from nearby towns. The Gordons are good mixers, as camp ground operators must be, and frequently officiate at campfires when the groups get together for evenings of singing and storytelling.

The Northeast, with its large centers of concentrated population, and some areas declining agriculturally, will find that as time passes rural people will need to depend on tourist trade and money. The tourists may be a family from the next town, the next state, or the next continent. To keep the country attractive we need to maintain a variety of scenery. Goldenrod and brush lots as a steady diet are not the visitors' idea of scenery—neither is mile after mile of pine plantation; but vistas of farm land, attractive homes on water, and forest scenes are.

The prospective owner of these

lands may find help from many sources. In most states the county agricultural agent is well aware of the problems of land use, and can advise on the ability of the land to produce the desired product, be it trees, fish and game, recreation, or just scenery.

In general, problems of water development and soil erosion may best be handled through the local Soil

Conservation District personnel, while problems of reforestation, timber sales, and timber values can best be handled by consulting foresters and state foresters.

Under the provisions of the Consolidated Farmers Home Administration Act of 1961, the FHA makes loans to groups of farmers and rural residents to develop land for recreational facilities, grazing areas, and forest lands. These loans are made to farmers who personally manage and operate not larger than family farms.

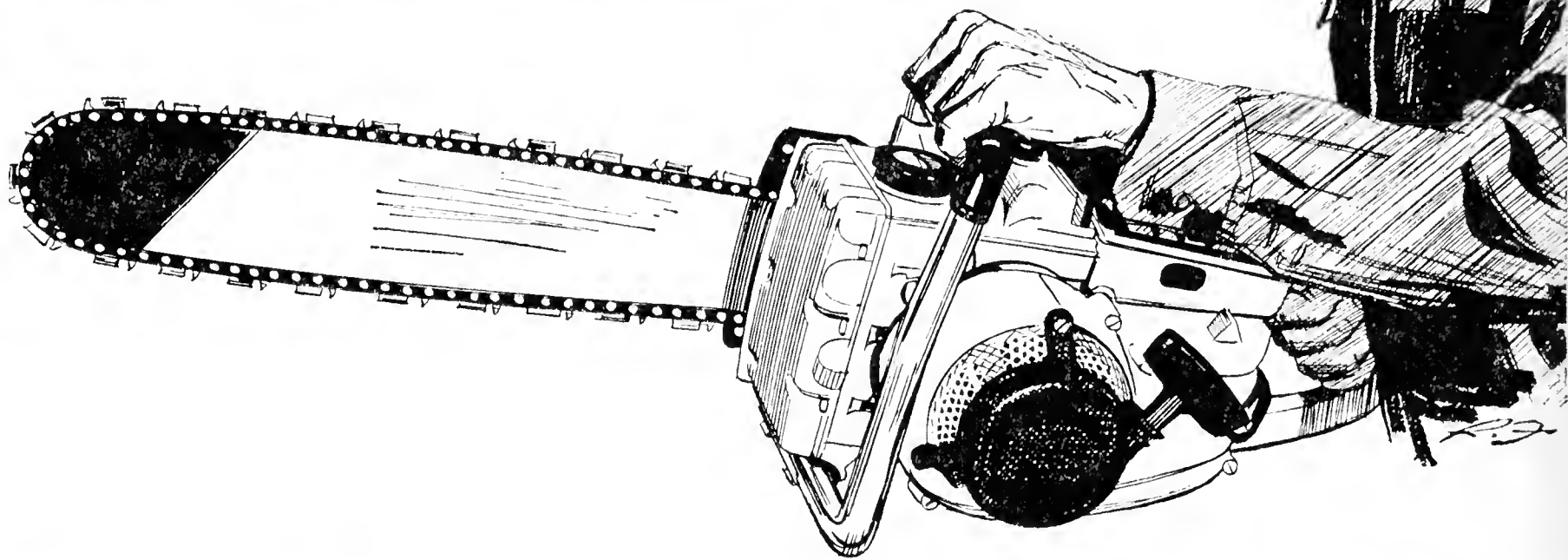
Printed matter is available from many sources; contact your county agent for details.

That portion of our rural land that is obsolete as far as traditional crop production is concerned can grow another crop—a quiet retreat for the farmer or businessman, a crop of birds for the hunter, fish for the fisherman, and photographs for the nature shutterbug. In many cases, this can also mean added income for the owner. Already many have tried it, and are satisfied with the work and the fun involved.

new

McCULLOCH 250

worth a closer look



more features / performance / value

TASTE TESTED MILK

(Continued from Page 13)

the color depending on how well he is doing at keeping bacterial counts down. Blue means a good job; red indicates not so good; yellow just so-so.

Charles Alexander, owner of Edgewart Farms and president of the Cooperative, says, "We have a better bargaining position, because we have a quality product."

Alexander reports that the organization has developed a reputation among dealers for a consistently top quality product; receiving station manager Lawrence Ransom adds that, "There haven't been any complaints about milk going out of here."

Lawrence visits members' farms to make suggestions for improved quality, reports that the number of blue cards going to about the same number of producers each month has tripled since the program started. He says, "There are two main causes of high bacteria problems—milker inflations get too old and porous, or air hoses get a slug of milk in them."

Producers have their own money invested in the organization and in its plant, where milk is transferred from bulk pickup trucks to over-the-road tankers. This investment in turn leads to a real interest in marketing problems, a sincere desire to maintain top quality, and concern about efficiency in operation.

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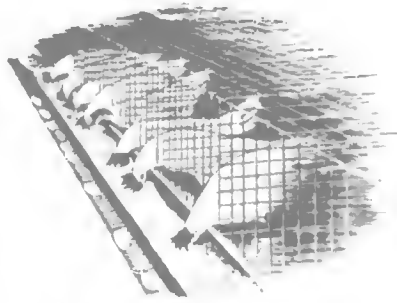
For free literature write: McCulloch Corp. Dept. AA-1, 6101 W. Century Blvd., Los Angeles 45, California.

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McCULLOCH
LEADERSHIP THROUGH CREATIVE ENGINEERING

By C. E. Ostrander *



Empire State Poultrymen Can Successfully Compete

THE OPPORTUNITIES in poultry farming in New York State are very good, and should continue to be for a long time to come. This is particularly true because it is a deficit egg-producing State; only about one egg of every four eaten within its boundaries is produced in the State. The people in New York State consume over five billion eggs a year (that's a lot of eggs!) but only about 1,700,000,000 of these are produced in the State. This is a real shame, because it means that well over \$100,000,000 a year is going to other states rather than staying in New York. There is no good reason why New York farmers should not have all or most of this money.

New York State still has the best markets in the world, which should be exploited to the fullest extent by local residents. Not only would agri-

culture benefit by producing more of our own eggs, but the economy of the State would be boosted. The feed industry in the State would benefit because the chickens to produce another 300,000,000 dozen of eggs would require 650,000 to 680,000 tons of feed. This should result in cheaper feed, too, because volume results in efficiency and thereby lower cost to the poultrymen.

Other allied industry would also benefit by New York State producing more eggs. These would include egg dealers, equipment manufacturers and dealers, pharmaceutical dealers, and many others.

California Contrast

These factors have been "brought home" to me more and more with my stay in California. California is now becoming a surplus egg producing State, and the poultrymen are worried, because this will probably reduce the price they receive for their eggs. They already receive four

to six cents less per dozen eggs than poultrymen in New York State. It's true that their feed costs are somewhat less than those in New York, but some of this is due to volume.

There is no reason why New York poultrymen cannot compete with any area in the country. We have the know-how and the technological information to compete with anyone. With the knowledge available for environmental control in poultry housing, and the knowledge of diseases and their control, we can produce eggs in any season of the year. Our poultry disease laboratories, located strategically throughout the State, are superior to any state in the nation, and surely give us a big advantage.

Heat is a real problem to the poultry industry in many of the Southern producing areas. They are now finding that they must insulate against heat and use cooling devices to keep birds comfortable and production from falling during heat waves. Last year California lost thousands of dozens of eggs during heat waves; many of the birds did not get back into good condition for weeks.

The margins in egg production will never be as great as they were ten to twenty years ago, but by having an efficient-size operation and running it in a businesslike manner, there are still lots of opportunities for a good living in the poultry business.

New York State has another great advantage. There are many centers of population scattered throughout the State; this provides an oppor-

tunity to sell eggs to a preferred market or at retail. Many sections of the country do not have this alternative. This enables some New York poultrymen to make a good living with a smaller enterprise than some others. If you like marketing, this is a wonderful opportunity that many poultrymen in other sections of the country don't have.

All in all, New York has a bright future in the poultry industry if we just take advantage of the opportunities we have. There is no section of the country that can put a fresher or better quality egg in our consumers' hands. If New York poultrymen will look at the egg industry as a business, and go about it in a businesslike way, they should be very successful.

Attention must be given to production efficiencies, disease control, and marketing; and we have the know-how in all of these. If producers will keep in mind that feed cost per dozen, bird depreciation, and labor are the biggest cost of production items, and strive to keep these in line, they should be very successful in the poultry industry in New York.

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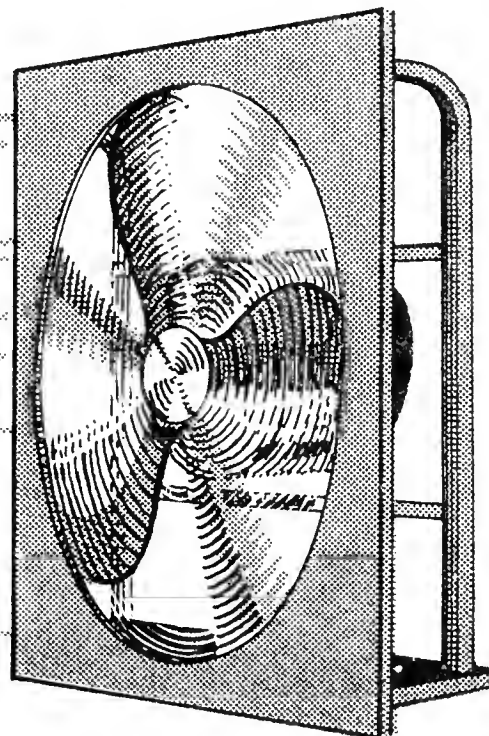
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Our Numbered Days

By ARTHUR MOODY

TAKE YOUR time, son; you've got two minutes," said the veteran reporter to the young cub trying to meet the deadline.

"So teach us to number our days that we may apply our hearts unto wisdom," wrote the author of the 90th Psalm. What an arresting thought!

Does that teach that the future is made by today's action? What one does now marks tomorrow's path, determines destiny for the days to come. Numbering our days is not counting time on the calendar; it's filling each 24 hours with something worthy accomplished, something done.

It also teaches that it comes from our hearts. Putting our heart into our effort, our work, our human relations means more than being good-hearted. It goes deeper. At least the whole heart is put into what we do. Somehow it implies the need of enthusiasm. Working with a song in the heart produces real rhythm in the result. It makes work beautiful, not burdensome.

"Apply your heart unto wisdom." Do we use the whole mind we're endowed with, aiming at the very best solution of our problem, making the



ARTHUR MOODY

product as nearly perfect as possible, seeking the highest ideal's realization? Progress in improvement in every area of being is applied wisdom. Shall we?

LET'S TALK ABOUT EGGS

(Continued from Page 14)

figures are, don't you think somebody ought to know.

M—Sure! But the way things are going, we won't have to worry about any income taxes. Some day I'm going to find an easier way of handling all these bills.

W—Like keeping records?

M—Oh, forget about records! I can't afford to spend time on them anyway. I make more money producing eggs.

W—All right. To change the subject, did you bury those two dead birds outside the egg room?

M—No, but the raccoons and foxes will take care of them tonight.

W—How many hens have we lost this year? That college fella said livability is a key to performance.

M—Oh, we've lost quite a few. They just don't seem to make hens like they used to. But I don't really know how many have died—no more than usual, I suspect.

W—But shouldn't we know how many have died? We had money invested in them. How can we get money out of dead birds?

M—Everybody loses birds. I don't think we had much money in them anyway.

W—Well, we bought them, and they've eaten a lot of feed. Only last week you were complaining about lugging all that feed up to the fourth floor.

M—Yeah, I suppose we did have

something in them—but it's too late to worry about that now.

W—And another thing—what percent lay are we getting now? That was mentioned quite a bit at the meeting.

M—Darn that meeting anyway! We're going to quit going to them if all you're going to do is ask questions afterwards. Who cares about percents — I'm interested in how many eggs we get, not how many percents.

W—Well, Harry's wife sat next to me, and she said they had just found out that their feed conversion was the lowest of 14 farms in their county.

M—So what does that prove? She was just bragging. How'd she find out?

W—They've enrolled in some farm management study, and their records for the last year were summarized by some feed company or the college people.

M—Well, I'm not going to let any strangers mess around with my figures.

W—You don't have any figures for them to mess around with.

M—It's a good thing. They're probably the ones responsible for this article and the 34 cent eggs. It's enough to make a fella quit raising chickens! Say, look at this article. It says that someone up in New York State made over \$12,000 last year raising rabbits; had some special marketing program with a big outfit in the city. You know, we could raise a lot of rabbits in our henhouses. Yes, sir. I just might think about going into the rabbit business.

W—How much did they make per rabbit?

M—It doesn't say—but \$12,000 is more than we're going to make this year with our hens. Thirty-four cent eggs—why, they probably aren't producing them for 54 cents! They never tell the truth about production costs; performance is what counts.

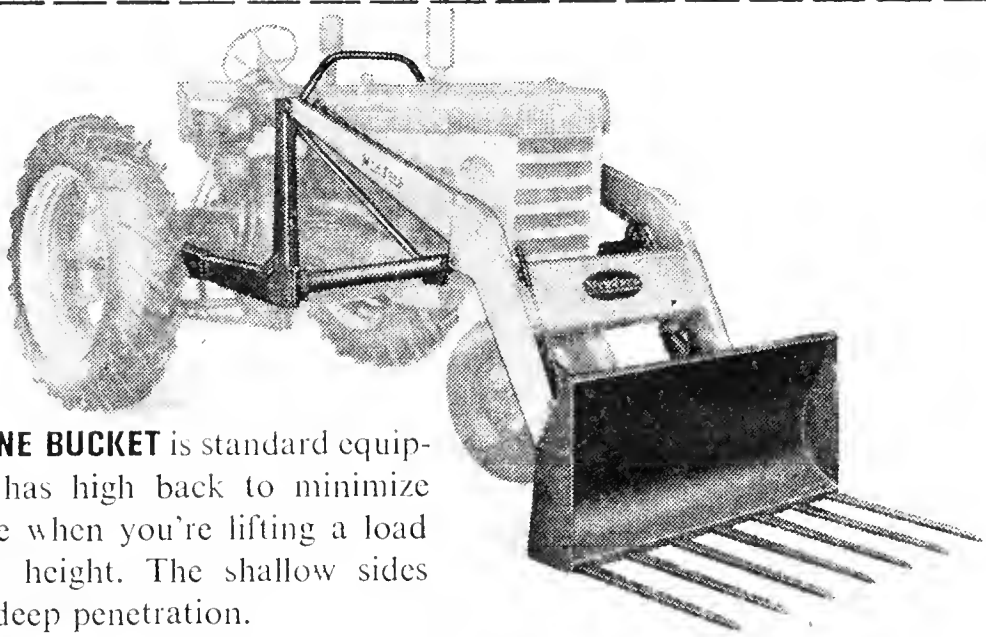
W—What do you call performance? M—Oh, don't ask foolish questions. I've got to get back out to the henhouse. If I did have some figures I'd write to the editor of this magazine and set him straight.

W—You'll be able to do that next year. I signed us up at the meeting for the business management program this coming year. Next year you may even be able to sell an article to that magazine—that is, if you're not raising rabbits!

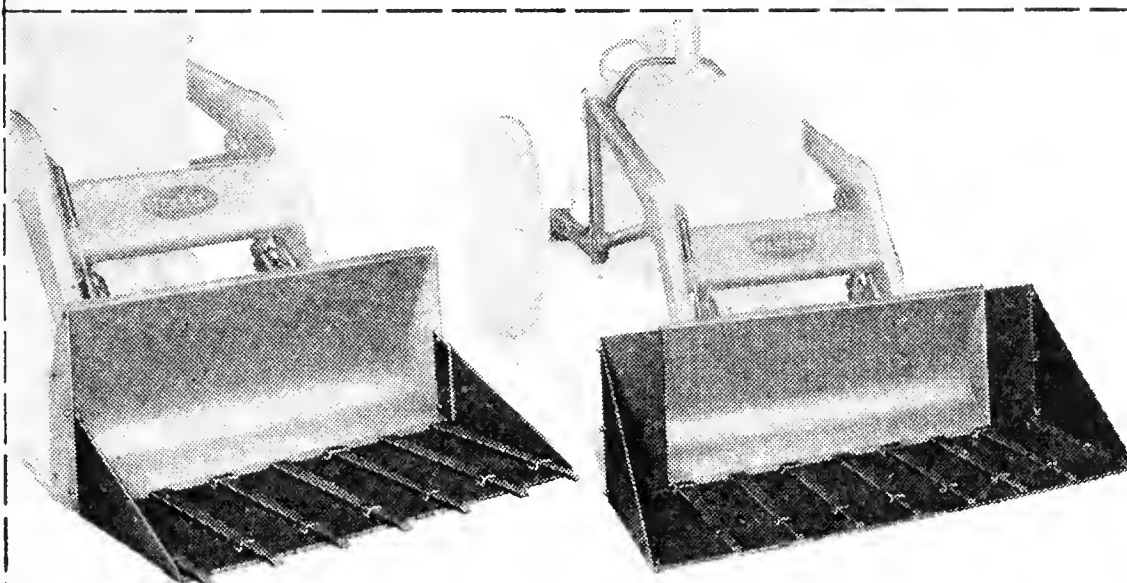
M—Well—you'll have to keep the records. Now hurry up with that coffee so you can help me wash the eggs.



"I think this spot has possibilities—I haven't even scratched the surface yet."



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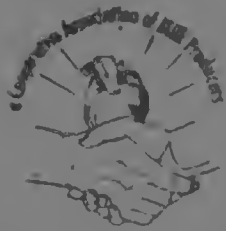
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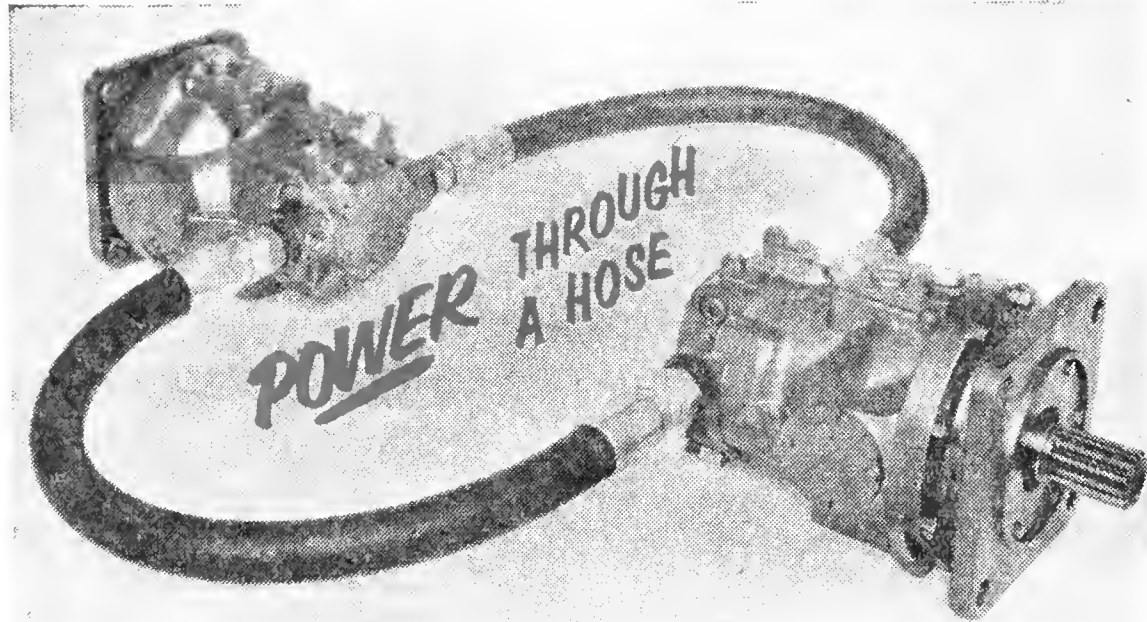
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ishing statements like "Piles have ceased to be a problem!"

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Hydraulics: Romantic or Practical?

By THOMAS E. CLAGUE

ONE OF THE many problems facing the designer of machines is getting the power from the source to where it is needed. He may use a rotating shaft, as in the pto; he may use belts and chains; he may even use oil in a hydraulic system of some sort.

While there is no magic to hydraulics, an element of romance seems to be associated with the transfer of power through fluids. This may be because of the great flexibility that hydraulics can make possible. The convenience of automatic transmissions and power steering in automobiles, trucks and tractors, for example, depends a great deal upon hydraulics.

The Future?

What of hydraulics in future farm equipment? Will it be revolutionized so that there are no gears, belts, chains, etc.? Probably not. The change is more likely to come about gradually as a sort of evolution. As it comes, some gears, some belts, and some chains will be displaced by hoses and hydraulic motors.

Hydraulics have already displaced mechanical levers to a great extent. Cylinders inside the tractor operate rockshafts which lift implements. Remote cylinders are an example of using hoses to do the job of levers and connecting linkages. Two brands of semi-mounted plows demonstrate the difference between mechanical and hydraulic transmission of power.

On one plow the cylinder is mounted at the front, and a mechanical connecting link causes the tail wheel to raise and lower as the cylinder moves. On the other plow, longer hoses are used and the cylinder is mounted at the back of the plow, right by the tail wheel. Thus, hose has displaced a metal connecting link running the full length of the plow.

A spectacular use of hydraulics eliminates gears in a tractor. This has been done on an experimental basis, and works very well. Essentially, the engine operates a pump that drives hydraulic motors located at the drive wheels. A control makes it possible to change the amount of oil delivered to the drive motors, which varies the speed of operation of the tractor. Such a system provides an infinite number of speed ranges instead of 12, 10, 8, 4 or whatever the conventional gear transmission is designed to provide.

This approach is called a hydrostatic drive, so named because the oil in the system is always under the same pressure—that is, the pressure is static. The idea of a hydrostatic drive is not new; it dates back to

before World War I, when it was considered for trucks.

The main problem with this type of drive is efficiency. Such a tractor is only about 75 percent as efficient as one with a conventional transmission, and it would be uneconomic to operate.

However, another hydraulic device is used in tractors now on the market, the torque converter. When it is coupled with a conventional transmission and running at about rated load, its efficiency is within perhaps 5 percent of a tractor with conventional transmission. But when a tough spot increases the load and slows the ground travel, efficiency drops off. If the ground speed is cut in half, with the engine at full speed the efficiency is probably not greater than 50 percent. But since such hard spots are often small, such a tractor would move on through without need for downshifting, and then the efficiency would go back up again.

Ultimately, economy is the major determining factor in the use of hydraulics in machines. If a machine cannot do the job nearly as well as existing machines—efficiency, performance, etc.—for about the same cost, it is not likely to replace the existing machines.

Better Job

There are applications, of course, where hydraulics can do the job better than any other approach, and where the hydraulic approach is not severely uneconomic. A case in point is the reel drive on a combine, which is now available. Using a hydraulic motor to drive the reel makes it possible to vary the reel speed easily, and completely independent of the rest of the combine. This is a convenience that will be considered with its cost by many owners, and it is something that it would be well-nigh impossible to do on an economic basis by mechanical means.

Still another application of hydraulic power is the use of booster motors on the rear wheels of a hill-side combine. When a little extra power will help in maneuvering, it is available. Consider how difficult and expensive it would be to power those wheels by mechanical means. This device has been marketed.

There are also successful hydraulically-driven mowers on the industrial market. At the time they were first marketed they had more flexibility and versatility than mowers powered by mechanical drives.

The use of hydraulics is important in farm machinery because of the many present applications, and future uses that will develop.

Farm Bureau Policies

OUR DECEMBER issue went to press before full reports were available of the New York Farm Bureau's annual meeting. Here are some policies on state issues adopted by the county delegates at that meeting on November 14:

Welfare — The delegates recommended that local authorities be allowed greater administrative flexibilities in controlling welfare programs; that work programs be instituted in all counties for able-bodied welfare recipients when economically feasible; that a one-year residency law be enacted in the State; that assistance in the form of goods instead of cash be given in home relief cases where cash is likely to be used for purposes that impair rather than help the family.

Milk — Recommended that treatment approved by the Department of Health be allowed to help prevent oxidized flavors in milk; that consideration be given to incentives for producing high quality milk; continued strong support by dairymen of existing voluntary milk production programs; mandatory deductions from producers (if approved by 2/3rds) through Federal Order 2 so that all dairymen contribute equally to milk promotion and advertising.

It was also recommended that a dairyman be allowed to sell 100 quarts of raw milk per day; adequate health inspection, but no restrictions against dairymen providing raw milk to their employees and to members of their immediate families.

A change in administration pro-

cedure to permit voting on amendments to milk marketing orders as separate proposals was brought forward; if the amendments were not adopted, the Order would remain as is.

Recommended was standardization of milk to meet consumer demand for a low fat product, providing a practical pricing procedure can be worked out.

Dairy Program — A special committee set up the following objectives of a strong dairy program:

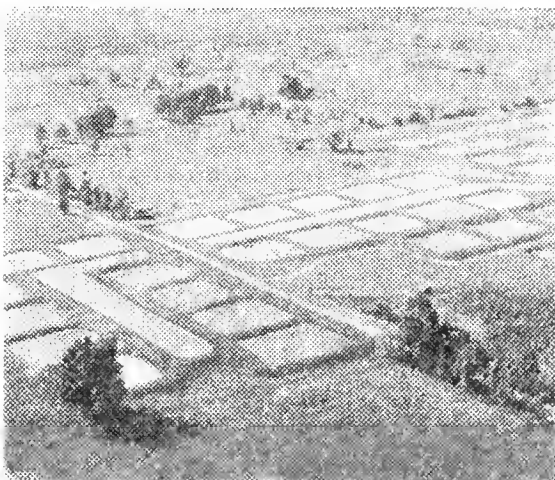
To afford producers the opportunity to analyze and understand dairy industry problems and issues; to provide an opportunity to work toward an equitable solution of problems within the framework of a general farm organization; to help develop unity with agriculture; to help strengthen the agricultural cooperative system of marketing by stimulating greater understanding and participation; to work for sound milk production and dairy research programs aimed at increasing consumption and finding new uses for fluid milk.

Alcoholic Beverages — It was recommended that the legal age for the sale of alcoholic beverages in New York State be raised from 18 to 21 years.

Schools — On school finances, it was recommended that the major responsibility for adequate financing of education remain with the states and localities rather than increased federal aid. On sharing costs, it was recommended that any plan of the State Board of Regents for future

expansion of elementary and high school facilities in a local district must receive acceptance by the local district, and that the State not be permitted to extend, expand or withhold state aid monies to force conformity of the local district to the wishes of the State.

It's New



Weed control research ponds.

Lake Country — These are part of the 92 ponds in which Cornell University scientists are studying the influence of light, mineral nutrients, and water depth on the development of aquatic weeds; also the effect of weed-control chemicals on water quality and fish. The knowledge gained will help in the fight against underwater weeds that clog reservoirs, etc.

Chicken Pillows — Not the meat, the feathers. The U. S. Army once received its supply of duck feathers from China, but this source has been

cut off. Working with the Quartermaster Corps, the University of Cincinnati has developed a method of tanning chicken feathers that puts them on the market as stuffing for pillows, sleeping bags or other containers. They are vermin-proof, can be mildew-proofed, are dustless, odorless and non-allergenic. The Cincinnati laboratory, maintained by the Tanners' Council of America serves as the national research center for the tanning and leather industries.

Insecticide — Ciodrin, a chemical insecticide, has been under test by Rutgers University entomologists for control of the face fly. As a result of the tests, Ciodrin will be used on the Garden State dairy herds in 1963. Drs. Elton J. Hansens and Philip Granett reported that in nearly every case Ciodrin reduced the face flies to a level where the animals were reasonably comfortable.

Resistant — Mites seem to be building up resistance to parathion and other insecticides. A new antibiotic, Actidione, has shown promise of control in tests at the Washington Tree Fruit Experiment Station, Wenatchee. It suppresses egg laying by mites, and sharply reduces mite population.

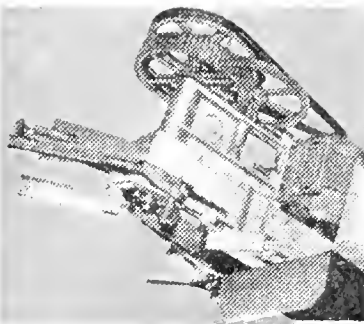
No Mother! — A cow at the University of Minnesota recently produced a calf — but the cow wasn't the mother! A fertilized egg was taken surgically from the "donor" cow and placed in the uterus of the "recipient" cow, who went through a normal pregnancy. The technique opens up exciting possibilities in livestock breeding.

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RENEWED

NEWS and VIEWS from New York and Pennsylvania

Ambassadors — Leonard Fuller and his wife Jean, Edwards, N. Y. will be the first couple from New York State selected to visit foreign lands under the sponsorship of the "Farmers and World Affairs, Inc.," 1201 Chestnut Street, Philadelphia, Pa.

Farmers and World Affairs is a non-profit educational organization working in cooperation with the Farm Bureau, Farmers Union, the Grange, and some of the farm co-operatives. It was founded in 1956 by a group of farm leaders to help the American farmer become better informed about international events, and to encourage him "to promote peace through mutual understanding."

Leonard will complete 43 years as an R.F.D. mail carrier on January 4. He is a member of the executive committee of the New York State Grange.

Babcock Chair — Professor David L. Call, a native of Batavia, New York, has been appointed to the H. E. Babcock professorship in food economics at Cornell University left vacant by the resignation of Professor Herrell DeGraff in July. Professor Call spent two years in the Army, served an intermediate term as instructor in business management at Cornell, was formerly with the department of Agricultural

Economics at Michigan State University, and has published a number of papers dealing with various aspects of the food industry.

Fallout Protection — Penn State University offers a correspondence course on "Fallout Protection for Family, Food and Farm." Write Correspondence Courses, 202 Agricultural Education Building, University Park, Pennsylvania.

Farm Leaders Reelected — At their meeting in November, 1962, the New York State Conference of Farm Organizations reelected officers for the coming year. Representing nine State farm organizations, the members discussed legislation and presented their thinking to Governor Rockefeller and members of the State Legislature in December. Leland Smith, Brasher Falls, was elected chairman; Thomas LaMont, Albion, vice chairman. E. S. Foster, Ithaca, was re-elected secretary for the 32nd year.

Gift — The Department of Animal Industry and Nutrition at the Pennsylvania State University has received a gift of 92 pedigreed Polled Hereford cows from Leon Falk, Jr., of Falklands Farm, Schellsburg. These cows, valued at about \$50,000, were given to establish a beef breeding research program and studies in genetics. The Leon Falk Family Trust

Pittsburgh, has also donated \$15,000 to initiate the program.

Elected — New York Farm Bureau president, William E. Bensley, Springville, New York, was elected to the American Farm Bureau Federation board of directors at the National Convention in Atlanta, Georgia, December 13. Mr. Bensley has been president of the New York Farm Bureau since 1961.

A New York farm wife has been elected to serve as a regional member of the Women's Committee of the American Farm Bureau Federation. Mrs. Margaret Lamb, Darien Center, has been chairman of the New York Farm Bureau Women's Committee since its organization in 1956.

Pro-Fac Meets — The stockholders' meeting of the Pro-Fac Cooperative was held in Alexander November 15, 1962. The morning was devoted to business sessions and election of officers, while the highlights of the afternoon session centered around an address by E. H. Fallon, general manager of the Cooperative G.L.F. Exchange. His subject was "Freedom is Our Responsibility." Directors, all from New York, elected at the meeting included: Herman G. Agle, Eden; T. E. LaMont, Albion; Robert V. Call, Jr., Batavia; Donald Cahoon, Wolcott; and Harold Soper, Geneva. The other six directors are: Gerald F. Britt, Byron; Russell S. Granger, Wolcott; Russell R. Joy, Fredonia; I. Fred Pattridge, Cuylerville; and Clayton G. White, Stow.

Winner — David Ingram, Penn Yan, was first prize winner of the New York State Division of the National Junior Vegetable Growers Association Production and Marketing Contest. David's entry consisted of 5.7 acres of kraut cabbage contracted to Libby McNeil and Libby. Second place winner in the State contest was Edward Schoen, Ontario County.

Argentina Agreement — Early in September the Pennsylvania State University and Argentina's INTA (national research organization similar to our USDA) signed an agreement to work toward improving and developing deciduous fruit production in the Upper Valley of the Rio Negro in Argentina. This would include research, extension, and educational assignments for specialists from the University and a number of Argentine students working for advanced degrees there. Entire cost is borne by INTA.

Opportunity — The Peace Corps means different things to different people. To David Knoll, who grew up on a dairy farm near Chatham, New York, it represents an opportunity to be of special service, and to work with dedicated people. He is working in Brazil's Sao Francisco Valley.

College News — Awarded for the first time in 1962 at the New York State College of Agriculture, Cornell University, were 10 \$400 General Foods Fund scholarships, open to students specializing in agricultural engineering, bacteriology, biochemistry, biological science, and dairy and food science.

For the second straight year, the New York State College of Agriculture leads all other agricultural colleges of the nation in number of undergraduate students, a total enrollment of 1,920—1,635 men and 285 women.

Professor William Hansel, Cornell University, received the \$1,000 award of the American Society of Animal Science for his work in animal physiology and endocrinology.

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Readers Tell Us!



GUIDE TO DECISION

IT IS good to see your paper ask its readers to weigh carefully the advantages and disadvantages of controls of production. There are two sides to every question, and seldom is either side entirely right or entirely wrong.

Price supports increase production. Quotas limit production. There is no occasion to pay for production in excess of need. Controls and freedom are both necessary to our way of life. We need them in a balanced ration. Complete freedom and absence of all controls could cause great hardships for the smaller farms which have produced some of our best citizens. Truly we need to weigh and consider.

A farmer friend in the West does not concern himself with quotas or prices or surpluses or scarcities. His program includes only those crops and activities which keep the farm in the best possible condition. He says the farm has been owned in his family for three generations, and has always provided a suitable living. He considers himself a partner with nature to preserve that family farm and its way of life. He holds to the belief that the purpose of life is the guide to all decisions.—*Alston O. Rose, Windsor, Conn.*

HEADING FOR TROUBLE

I have been sure that this country was heading for financial disaster for the last 15 years. Now we are coming closer to the time when public confidence in the dollar may disappear—that's about the only thing backing it up since our gold reserve is completely mortgaged.

Senator Byrd warns of the danger of deficit spending and it falls on deaf ears for the most part.

The term Democrat or Republican is no longer representative of one political philosophy or another, rather the term Liberal or Conservative divides the parties on major issues.—*Lynn Goodspeed, Ft. Johnson, N. Y.*

MAGIC WAND

In reading a recent issue of *AMERICAN AGRICULTURIST*, I saw an article containing comments by county agents on new things they think farmers need.

It seems to me that if I had a magic wand I would put it to better use than conjuring up new and more expensive and complicated machines and gadgets. As I see it, the fast and furious pace of progress in farming has most of us bewildered, tired, and heavily in debt.

I would like to wave a wand over Washington first, preventing any more programs to help (?) us. Then I would wave said wand over the consumers who are leading us by the nose in demanding more and more frills and services, the cost of which is always passed as far back along the line as possible.

Then a wave of the wand over the quacks and professional agitators who try to discredit our fine, pure, and wholesome products.

What we need most is a chance

to take a breather from our recent fast pace in expansion and modernization and get caught up on our debts, both financial and to our families, our communities, and ourselves. Our average age is fast approaching that at which most laborers, who haven't worked nearly as hard as we, can retire.

The machines which our good friends visualize look very tempting, but let's wish instead that we could get along nicely for a while with the last crop of dream machines, which "ain't paid for yet."—*Willard R. Reynolds, Franklinville, N. Y.*

FARM PROBLEM

Our business is primarily poultry, and we are very conscious of supply management. However, how to achieve it is the major problem.

It is our opinion that the government does not seem to have all the answers. We realize that this problem is the major one of agriculture today; none of the programs that have been tried so far has solved the problem. Poultry has not been to this time the recipient of very much of the federal programs; to some extent it has worked to our disadvantage, particularly in terms of high feed prices.

We feel that supply management, but mostly within the industry itself, will solve more of the problems than the federal programs. We know that many are going to be hurt, and it is a long-time program, but the real problem of agriculture has been becoming so efficient too rapidly — producing surplus in all food lines.

Many farmers are so tired of hearing from our agricultural colleges that we must become more efficient—which we have done, and resulted in the present conditions. We realize that one must be above average in efficiency or you cannot survive today; the long-term program is going to boil down to the least efficient being unable to survive. We have observed in our own area that the more efficient operators are still

making a good profit, although there are many who are falling by the wayside.

We personally are not asking or looking for federal help. We believe if the government would taper off on federal programs, in time agriculture would solve its own problems. It will add up simply to less operators doing a better job. There will be ups and downs as in any other business, but the good ones will still survive.—*Edwin B. Wallis, Sr., Liverpool, Pa.*

NO TAILS?

Your crystal ball regarding the dairy cow of the future came in loud and clear until the last paragraph. Why should you be caught in the kisser by the tail of a 1975 cow? This problem should be solved long before the 70's.

Today chicks are debeaked, dubbed, dewed, dewinged, caponized, hormonized, etc. Lambs and dogs have long been docked. The practice of dehorning cows has long been established, and some have been polled.

Such dissection seems advisable when the part removed served no useful or necessary purpose but may have been a liability or nuisance. With flies a thing of the past in the sterile cage of an aerosol-fogged barn, what useful or necessary purpose could a cow's tail serve? The problem then becomes not one of tolerance or control, but rather removal or elimination.

Why not dock calves? Or, better still, develop breeds polled at both ends? Perhaps until this can be accomplished an injection of thalidomide at the exact stage of pregnancy when the tail would normally be formed would produce calves with no tails.

Yours for tailless cows by 1975.
—*Victor Decker, Tunkhannock, Pa.*

COMMENT ON SCHOOLS

After a very busy summer of picking, canning, freezing, and churning, I find myself with a stack of unread newspapers and magazines carefully piled in chronological order. In the process of "catching up," I read through the May, 1962 issue of the *AMERICAN AGRICULTURIST* which included an article about our educational system by Mr. Harold Hawley, entitled "The New 'Untouchable.'" I compliment Mr. Hawley for his bravery in airing such a "controversial" and "forbidden" subject.

As a parent of a school child, I have been waging a lonely battle over present-day inadequate and erroneous teaching methods, squandering of education funds on flashy, rambling structures called schools, the usurpation of the parents' right to care for the physical and mental health of their children, and the swallowing and smothering of local education by the state education departments. These conditions in New York State are no doubt prevalent throughout the nation.

The reason for the response of "resounding silence" (to quote Mr. Hawley) is simple and clear. He shouldn't believe for an instant that parents don't realize what is happening and don't care—nothing could be farther from the truth. Under the seemingly calm and approving surface there is great unrest — much changing of schools for youngsters in the forlorn hope of finding a better one from the standpoint of worthwhile education — much inward seething and dissatisfaction expressed in whispers.

Why all the secrecy—all the silence? Most people today lack the old-time pioneer spirit. **They are afraid to speak out, to criticize.** Why so much so where education is concerned? Parents fear retaliation against their children at school if they dare to criticize the system they are paying for out of their own pockets every day of the year, which system they are endorsing by their very silence! —*Mrs. Bertram Smith, Woodbourne, N. Y.*

CHANTICLEER

Just read Harold Hawley's account of his trip West and of hearing the roosters crowing. Early this summer I heard, about daylight, a rooster crowing at my neighbor's house three-fourths of a mile across the creek. When I saw him later, he told me it was a Bantam rooster someone had given him. I enjoyed hearing him so much that I located a rooster and two hens of the Brown Leghorn Bantam breed.

Now, every morning when I go into the barn and light it up, he entertains me with at least fifteen minutes of his crowing. Later when I go outside, he is leading his hens around with a proud cocky look. The little hens do a lot of singing, which is music to me. They scrounge for a living and occasionally we find an egg most anywhere. Certainly recommend to anyone to get a Bantam rooster and a couple of hens.—*Hugh Fergus, Slippery Rock, Penna.*

SINCE 1872

In your July 1 paper I saw a piece headed "Old Reader." I would like to say that my father and I are old readers. He took the paper in 1872; my husband and I took over the farm in 1900, and my husband died in 1947. Our son is in the old home now and we still take *AMERICAN AGRICULTURIST*. I am 81 years old now, but still enjoy reading.—*Mrs. Leslie Huggett, Norwood, N. Y.*

CHIP BUSTING

I agree heartily with your thoughts about Hallowe'en.

It is giving the young a wrong impression to think they can "demand" anything. Have you heard about the man who, while greeting Hallowe'en callers, dropped an apple into the open bag—only to be told, "Hey, you dope, you've broken my potato chips!" —*Fred H. Tuttle, Elbridge, N. Y.*



Newly-elected officers of the New York State Association of County 4-H Club Agents. Left to right: Carl B. Gary, Watkins Glen, 2nd vice president; Howard J. Stelle, Syracuse, first vice president; John E. Berney, Riverhead, treasurer; Fred S. McCloskey, Lowville, president. Seated is Miss Priscilla F. Watson, Canandaigua, secretary.



Frankly, Mabel, you can't beat WATKINS!

All the back fence barnyard talk is about WATKINS Farm and Feed Salt, these days. It's not all gossip, either. Most farm animals tell us they **prefer** WATKINS... because they just like it better!

Since that's the case, you can keep them happy very easily. Yes, it's in the bag... 25, 50 and 100 lb. bags, that is... ready for feed mixing WATKINS Farm and Feed Salt, plain, iodized or trace mineral.

And if yours are tempermental, like-it-in-the-pasture types, get WATKINS Salt blocks or 4 lb. bricks... plain, iodized, sulphurized or trace mineralized.

Might as well go whole hog, too, and use WATKINS Table Salt in your house! It's tasty, adds zest to food and comes in 26 oz. rounds or the new 4-Way Canister. Look for the red WATKINS label!

WATKINS SALT IN THE AMERICAN HOME FOR 60 YEARS

**Watkins Glen,
New York**

Need Better Milking To Whip Mastitis

By DOUGLAS N. STERN*

THE number of cases of mastitis coming to our attention is increasing, and the number of different organisms found is increasing in spite of the many antibiotics now available for treatment. It is known that an injury or irritation to the udder will predispose the animal to a case of mastitis. With this in mind we decided to investigate the actual practices being used on the farm that might expose cows to injury.

Pulsator Important

The pulsator itself is perhaps the most important part of the machine. It determines whether or not the teat cup liners will collapse completely with each cycle in order properly to massage the teat walls and prevent undue irritation from continuous action of the vacuum.

Even though they may be perfect when they leave the factory, as little as one week's use in dusty surroundings may cause a partial plugging of the air ports, which in turn will not allow sufficient atmospheric air to enter completely to collapse the teat cup liners and provide proper massage.

The speed or pulsation rate is also important to this proper massaging of the teat wall. Since each brand of machine is made differently, the pulsation recommendations of the manufacturer should be followed.

On the 81 machines we checked,

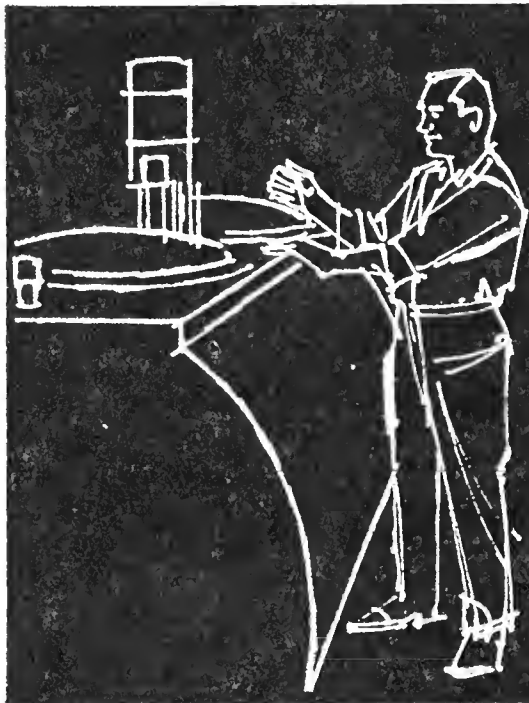
33.3% were found to be operating more slowly than the range indicated by the manufacturer, and an additional 19.8% were being operated more rapidly. Or, in other words, more than 50% of the machines were not being operated according to manufacturer's recommendations.

The actual vacuum level is not quite as important as the fluctuations in the vacuum during the milking procedure. These fluctuations may cause a resurgence of milk, forcing milk containing organisms back into the quarters and causing undue irritation at the end of the teat.

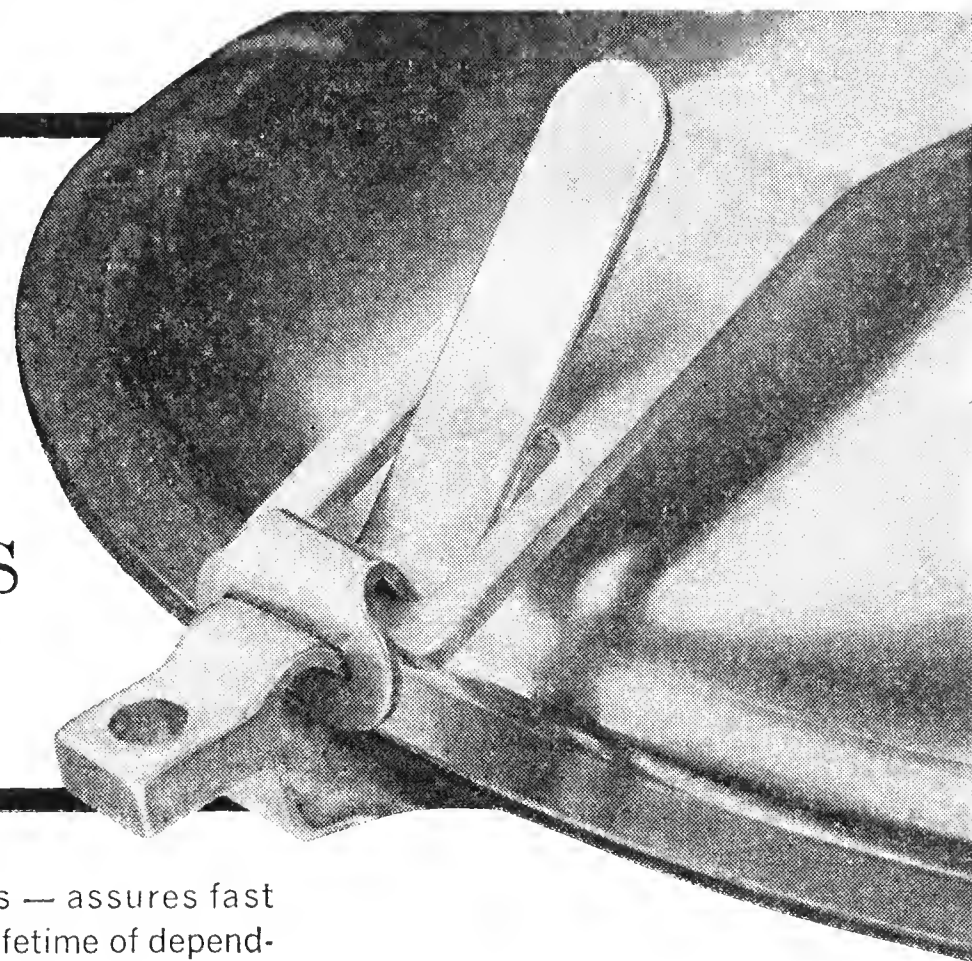
The fluctuations in vacuum were found to be excessive on 10 of the 21 farms and fairly constant on 11 farms. The reasons for this involved in some instances faulty regulators that could not maintain an even vacuum; under-capacity vacuum pumps or motors that could not adequately handle the number of units being used during milking; too small a size vacuum line that simply could not handle the job.

While faulty milking machine functioning is not the cause of all mastitis, it certainly is a large contributing factor. The rubber teat cup liners which go on the cow at least twice a day should be changed every 6 to 8 weeks, depending upon what type of liners are being used. The same thing is true of the short air hoses that connect the claw with the bucket.

*Extension Veterinarian
University of Massachusetts



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Your milk is money. Mojonnier seals it under vacuum. Exclusive latching covers of the Mojonnier bulk cooler lock tight, seal out dust, odors, insects, and warm air. Cold is sealed in. Power costs are lower. Milk is higher in quality, with fresher flavor.

Milk can't be made cleaner than it comes from the cow. But the sealed Mojonnier keeps milk fully protected for top price.

100% Stainless Steel inside and out. Rigid, cylindrical shape — coupled with SPRAY-O-MATIC cleaning and smooth Micro Pol-

ished surfaces — assures fast draining — a lifetime of dependable, convenient service!

For pour-in, dumping station or pipeline, it's the latest in milk handling. Install a sealed-system Mojonnier. Save cost of a releaser. Be ready for a complete pipeline any time. Earn higher milk checks now. Write for literature describing today's most-wanted features of vacuum milk handling. **Mojonnier Bros. Co., 4601 West Ohio Street, Chicago 44, Illinois.**

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QUALITY ENGINEERED FOR ECONOMY

**SEALED SYSTEM
OF MILK HANDLING**

Mississippi In Reverse!

In this farm community of Upstate New York, efforts are being made to help Negro children get a better education.

CORNELL University researchers have built a mechanical cherry picker that passed its tests in the orchards and they have put together another Rube Goldberg scheme that will undoubtedly emerge as an efficient grape harvester. Tractor drawn machines have moved into many green bean fields to strip the beans from the plants at a speed never seen before.

Each one of these machines will replace many pair of hands, black hands in many cases that have known no other work. Will the migrant laborer, who now follows the harvest and moves his family from one labor camp to another, become "a vanishing American?" Never! For though his role as a migrant disappears, he will be very much there, looking for a new job, a new way of living, and for help in adjusting to both.

The largest single group of migrants in New York State is housed near King Ferry in Cayuga County, where in three units live 900 adults and about 300 children. Many people in the county are concerned about the future of these people, and are working on some solutions. "Education is the answer, of course," says their chaplain: "we must do a better job with the children."

"The children of migrant workers are destined to take as active a part in the government of the nation as are children with permanent residence in a school district," says Arvid Dahlstrom, supervising principal of nearby Sherwood Central School. "The need to prepare for citizenship is as urgent for transient students as for those who attend school regularly."

"Many of them have never had any formal education," says the chairman of a school board in the area.

At Sherwood the New York State Education Department; Raymond T. Sant, superintendent of Cayuga County schools; Sherwood School Board (headed by Chester Simkin); and Mr. Dahlstrom, set up a six week summer session last summer especially for a group of these migrant children. The program was paid for by the State, and included classes from 9:00 a.m. till 3 p.m., lunch at noon, and bus transportation to and from the labor camp.

The curriculum centered around the three R's, with some social studies, science, health, art, music and physical education added. The fifty pupils (6 to 13 years old) were divided into three groups according to age. Three regular teachers from the Sherwood Central School faculty had charge of the classes, while four other teachers taught special subjects on a part-time basis.

Although this is the first year that such a program has been offered at Sherwood, it is the seventh year for New York State, with nine schools participating last year. In the life of a migrant child, the school year is chopped away by moves from one school to another, constant adjust-

ment to new teachers, classmates, new ways of instruction, and by time lost on the road.

Since they are not residents of the states where they travel, compulsory attendance laws may not apply, and few will make the effort to get them into a school. The result is spotty learning, and the aim of these summer schools is to fill in the blanks. One little boy at Sherwood was found to have a good acquaintance with the numbers seven and eight, but two, three and four were complete strangers to him.

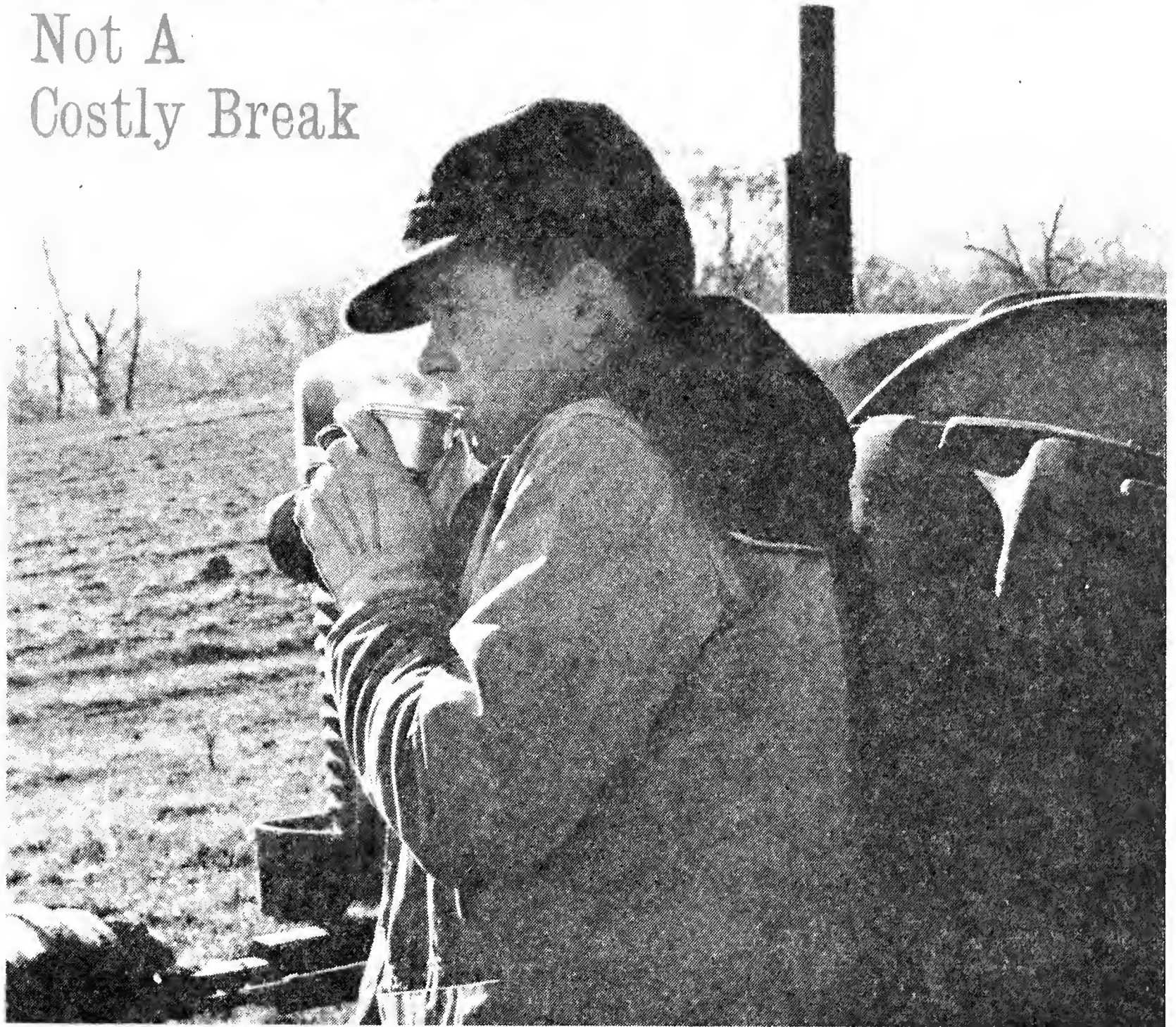
The members of the staff at Sherwood admit that they have probably learned more from the experience than their summer pupils. From the children's remarks, from Rev. Elijah Gardner (their chaplain), and from visits to the labor camp, the teachers have begun to understand the ways of the migrant children. They come to school clean and neatly dressed (although cleanliness is not easily achieved in a labor camp). They are happy, speak politely and with respect to their teachers, although their vocabularies in darker areas far exceed that of the average child. They are willing and anxious to learn for these are children whose parents took the trouble to register them in summer school. They appreciate anything given them, from a

scrap of paper to the excellent food at lunch.

They are very conscious of ownership, and willing to defend it with fists the girls as willing and able as the boys. Their playground supervisor found them naturally graceful, some already showing promise as athletes. They are affectionate — crave attention—for they come from situations where parents are mostly busy or tired.

Will six short weeks of special schooling offer any real help to children from such a background? Mr. Dahlstrom reiterates that this summer program was an experiment at Sherwood, but adds that the results look good—a promising step on the long road toward helping these migrants to prepare for other ways of living. *Mrs. C. E. Mapes*

Have A Coffee Break... Not A Costly Break



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February Issue Closes Jan. 5
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April Issue Closes March 5
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GINGERBREAD CONTEST!



Mrs. Augusta Chapman

Co-directors of the Gingerbread Contest are Mrs. Augusta Chapman, Home Editor of American Agriculturist, and Mrs. Dorothy Scofield, Otego, N. Y., Chairman of the 1963 State Grange Service and Hospitality Committee.



Mrs. Dorothy Scofield



—Photo: Brer Rabbit Molasses

What can match the fragrant aroma of a freshly baked gingerbread? This popular and easy-to-make dessert will star in this year's baking contest.

THIS IS the year to hunt out your favorite gingerbread recipe and get practiced up to enter the annual American Agriculturist-Grange Baking Contest. Yes, in 1963 it's to be a Gingerbread Contest, and there'll be plenty of prizes, fun, and excitement in store for all New York State Grangers who enter it. If you are not a member of your local Grange, why not join now and share the fun? Who knows, you may bake the gingerbread that will carry off highest honors in the finals next fall!

Directing the contest are Mrs. Dorothy Scofield, Otego, New York, Chairman of State Grange Service and Hospitality Committee, and Mrs. Augusta Chapman, AMERICAN AGRICULTURIST's Home Editor. Assisting them are two other members of the State Committee, plus nearly 1,000 Pomona and Subordinate Grange committee chairmen.

The score card on this page is the one that will be used by the contest judges, so study it carefully. It will help you make a prize winning gingerbread. Over eleven thousand copies of the score card and contest rules are being sent to Service and Hospitality chairmen throughout the state, and you can get a copy from your local chairman. You will also need to find out from her the date that your Subordinate Grange gingerbread contest will be held. Some of the Granges are getting off to a quick start and will hold their contests in the near future, so don't

delay in finding out about it.

Contest Rules

The contest rules are few and simple. Here they are:

1. Each contestant must be a member of a New York State Subordinate Grange. All Grange members (men and women) are eligible, with the exception of those who are professional bakers.
2. Each contestant will enter a gingerbread baked in a pan approximately 8x8x2 or 7x7x2 inches.
3. Gingerbread made with a gingerbread mix is not eligible for entry in this contest.
4. The winner of each Subordinate Grange Contest is to compete in the County Contest, and the Pomona winners are to compete in the finals at State Grange Annual Session next fall.

Prizes Galore!

If you were at State Grange in Syracuse last October, you saw the wonderful exhibit of prizes that were awarded by AMERICAN AGRICULTURIST advertisers to the top ten winners in the 1962 Apple Pie Contest. There were grocery prizes galore and four grand prizes which included three ranges and a picnic set consisting of a Redwood table with matching benches and a charcoal grill. Besides these prizes, \$266 in cash prizes was distributed!

While we're not yet ready to tell you about this year's equipment and grocery prizes, we can promise you

they'll be super-duper, as always. Watch for the announcement of them in a spring issue of AMERICAN AGRICULTURIST. Cash prizes for the contest will be the same as last year: \$3.00 from State Grange to each person taking part in the finals, and \$107 from AMERICAN AGRICULTURIST to be divided among the top winners. Prizes for the Subordinate and Pomona Grange contests will be arranged for locally by the chairmen of the Service and Hospitality Committees.

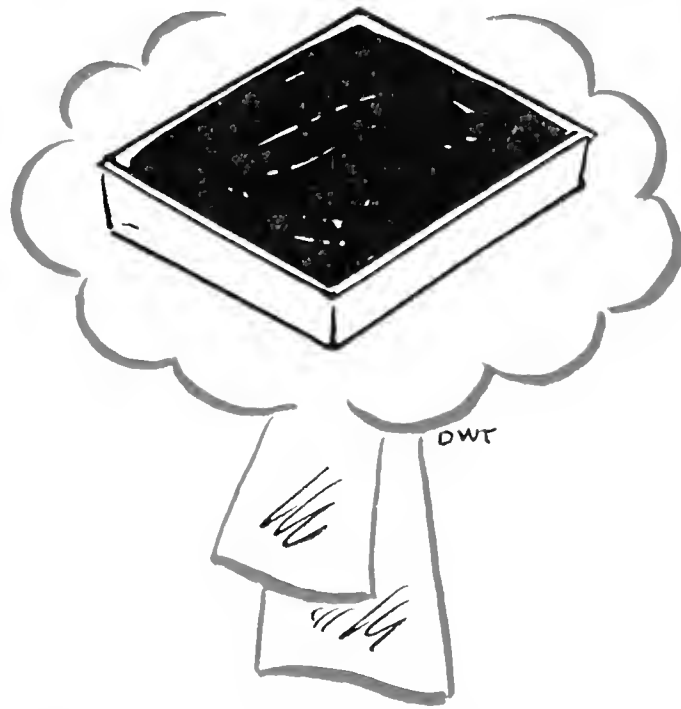
Happy Winners

One of the most interesting parts of our baking contest each year is reading the letters we receive from the happy winners.

"Please accept my sincere thanks for the very generous \$25 check which your magazine contributed," wrote Mrs. Thelma Erbin, Lowville, N. Y., No. 1 winner in last year's Apple Pie Contest.

"The Magic Chef range was delivered right to our door, and I appreciated this very much. It was such a complete surprise and thrill to win this beautiful range along with so many other wonderful prizes. Thank you again for all you do for these contests. I know there is much more interest up here in Lewis County now."

Mrs. LaVerne Buckley, Collins, N. Y., No. 2 winner last year, wrote us, "Again, I wish to thank the AMERICAN AGRICULTURIST for my check and the many, many gifts I will receive. My daughters can



hardly wait to see that stove!" Mrs. Buckley won the Fabulous 400 Tappan Electric Range.

Third place winner in the contest, Mrs. Anna S. Nichols, Mumford, N. Y., chose the Monarch Marvelous "Modernique" Electric Range as her grand prize. A letter from Mrs. Nichols told us, "Mr. Tomlinson, the Monarch representative, brought my stove and installed it for me. Everyone thinks it is so nice and just great that I won it. One young boy was in and said, 'All of that for one pie!' I feel that way myself and can hardly believe yet that I won it."

If you enter this year's gingerbread contest, you may be one of the happy finalists next fall. Certainly, you'll have fun competing all the way up from the Subordinate Grange contests to the finals. Gingerbread is easy to make, and your family will be glad to have you practice up on them! And now we wish the very best of luck to all of the thousands of Grangers who will take part in the 28th American Agriculturist-New York State Grange Baking Contest.

GINGERBREAD Score Card

Each contestant will enter a gingerbread baked in a pan approximately 8x8x2 or 7x7x2 inches. Gingerbread made with a gingerbread mix is NOT eligible for this contest.

	Perfect Score	Judges' Score
GENERAL APPEARANCE	10	-----
Size (5). Cake should have good proportions in relation to size of pan—neither too thin, nor too high and humped.		
Shape (5). Slightly rounded or flat across top, not sunken or humped in middle and cracked.		
CRUST	15	-----
Color (3). Top and bottom of cake should be uniform with no scorched edges.		
Smooth (3). Smooth, not bubbly or lumpy or cracked in appearance.		
Thin (3). Crust should be thin.		
Crisp (3). Crust should be crisp, not steamy.		
Tender (3). Should be tender, not tough and hard.		
CRUMB (inside of cake)	40	-----
Color (5). Even, not streaked.		
Lightness (10). Light, not heavy for size.		
Texture (25).		
a. Fine and uniform grain with cells uniform in size (10).		
b. Tender (5).		
c. Moist, not dried out (5).		
d. Elastic. Springy, not doughy (5).		
FLAVOR (odor and taste)	35	-----
Odor pleasing and not too strong. Flavor well blended, even throughout, not too strong.		
TOTAL	100	-----

Dreaming and Gardening

By NENETZIN R. WHITE

JANUARY is the gardener's dream time! Just sit back and visualize yourself stretched out on a chaise lounge on a picture terrace with sun filtering through your light shade trees (probably Moraine Locusts), and with water cascading gently into a pool. The pool is surrounded by beautiful dwarf plants, large containers of vivid, colorful flowers, and there's a doll of a dwarf hedge around it all. This doesn't have to be a dream—it can be a reality!

In July of 1962 I wrote an article on terraces, telling you how to build one yourself, or how to have it done. You can have a terrace at practically no cost by using treated wood slices, or you might spend your Christmas money on a professional job. Your cascading fountain-pool can be purchased, or by building it yourself, you will need to buy almost nothing except a small pump. The pool plantings can be done by the family with just a few well chosen dwarf plants and some of these can even be native, woody plants.

The small dwarf hedge should ideally be evergreen. Here you can save by buying small size evergreens and planting them in a well prepared trench. The peat that you use now will repay you a hundred fold in years to come. Remember, put a one-dollar plant in a five-dollar hole, and it will do better than a five-dollar plant in a one-dollar hole.

Buy good varieties of shade trees, such as Moraine Locusts. Small ones at \$5.00 to \$12.50, if well planted, will come along with surprising rapidity. These are unusual in that they are very fast growing, but also strong wooded.

The pots of vivid color can be object d'art containers, redwood tubs, or clay pots sanded and brightened with any old leftover paints. Fill these with annuals. You can start your own from seed, or a refreshing

change is a nice sturdy clump of delphiniums, lupins, peonies or any such perennial. Early in the spring, transplant these perennials to the containers and keep them in your borders until about ready to blossom. This patio will be an interesting conversation piece and also very liveable.

Snow Drifts

Well, let's get back to the reality of January! Look around at your snow drifts and see if some plantings, with thought and proper placing, wouldn't drop snow in more

convenient spots where you don't have to shovel. With our prevailing westerly winds, a planting well away from your walk or drive will drop a lot of the snow before it gets to areas that you have to clear. As an experiment, place a large trash container or some such object twelve or fifteen feet to the west of a large drift. I bet you'll be amazed at the difference just the one object will make. Consider putting windbreak plantings in these spots next spring.

Winter Color

Christmas decorations will soon be coming down. Why not have a few pots of nice flowering plants to take their place? Many of these can be started from an inexpensive packet of seeds. Among the best are the dwarf marigolds, nasturtiums, and

morning glories. Morning glories now come in such a variety of colors that you could use several pots of these. Keep the tendrils pinched back, and you should have at least one mammoth flower at a time.

The seeds of any citrus fruit or avocado, or a tuber of sweet potato make really nice plants too. If you can find anyone with a plant of Impatiens (sometimes called Balsam or Sultana) do get a slip, for it makes a compact, showy, succulent plant that seems to blossom constantly. Practically all flowering plants need a few hours of light each day, so if you can't supply sunlight, use artificial light in order to get some blossoms. All this should give you some winter color which can be carried over to your tubs, porch boxes or borders in late spring.



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* (GLF Members Insurance paid \$100,000 in cash refunds to members last January)

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Spring and
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1963



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'ROUND THE KITCHEN

By ALBERTA D. SHACKELTON

SURPRISE your family with the different versions of the batter-type recipe below. It mixes easily, without kneading, rises quickly, and can be baked without elaborate shaping.

SWEET ORANGE BREADS

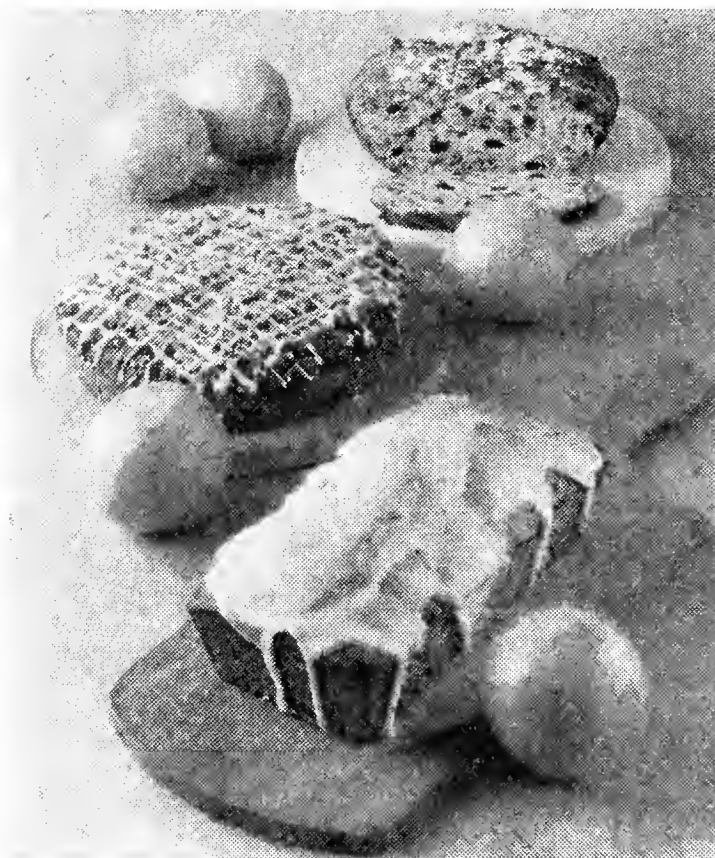
$\frac{1}{2}$ cup milk
 $\frac{3}{4}$ cup sugar
 $1\frac{1}{2}$ teaspoons salt
3 packages active dry yeast OR
3 cakes compressed yeast
 $\frac{3}{4}$ cup very warm water
 $5\frac{1}{4}$ cups sifted flour OR
 $4\frac{3}{4}$ cups unsifted flour
 $\frac{3}{4}$ cup ($1\frac{1}{2}$ sticks) butter
3 eggs, beaten
1 tablespoon grated orange rind

Scald milk; stir in $\frac{1}{4}$ cup sugar and salt. Cool to lukewarm. Soften yeast in the warm water. Combine with the milk mixture and add 2 cups flour. Beat until smooth. Cover. Let rise in a warm place, free from draft, until light, about 20 minutes. Meanwhile, cream butter until light and fluffy. Stir and beat into the yeast mixture the softened butter, remaining $\frac{1}{2}$ cup sugar, eggs, and orange rind. Stir in the remaining flour; beat hard, until smooth and somewhat elastic, about 1 minute. Proceed as for one or more variations below. One-third of batter makes 1 loaf.

Spiced Fruit Bread. Lightly toss together $\frac{1}{2}$ cup seedless raisins, $\frac{1}{2}$ cup chopped pecans, $\frac{1}{2}$ cup chopped mixed candied fruit, $\frac{1}{2}$ teaspoon cinnamon, $\frac{1}{2}$ teaspoon ginger, and $\frac{1}{4}$ teaspoon nutmeg. Add to $\frac{1}{3}$ of the batter and mix well. Turn into a well-greased $1\frac{1}{2}$ quart mold. Cover. Let rise in warm place, free from draft, about $1\frac{1}{2}$ hours. Bake in a moderate oven (375°) 25-30 minutes, or until it tests done. Cool. If desired, sprinkle with confectioners' sugar.

Double-Crumb Coffee Cake. Rub together with fingers until crumbly $\frac{1}{2}$ cup flour, $\frac{1}{3}$ cup brown sugar, packed, $\frac{1}{2}$ cup chopped pecans, $\frac{1}{4}$ cup ($\frac{1}{2}$ stick) butter, and $1\frac{1}{2}$ teaspoons cinnamon. Sprinkle $\frac{1}{2}$ of the mixture in the bottom of a greased 8-inch layer cake pan. Turn $\frac{1}{3}$ of the batter over crumb mixture. Top with remaining crumb mixture. Cover. Let rise in warm place, free from draft, about 1 hour. Bake in a moderate oven (375°) 30-35 minutes or until it tests done. When cool, drizzle with confectioners' sugar icing.

Frosted Orange Loaf. Turn $\frac{1}{3}$ batter into well-greased 9x5x3 inch loaf pan. Cover. Let rise in warm place, free from draft, about 1 hour. Bake in a moderate oven (375°) 25-30 minutes or until it tests done. Cool and



"Bake It Easy," and make these three orange-flavored treats from one recipe.

—Photo: J. Walter Thomson

frost with 1 cup confectioners' sugar that has been combined with 2 tablespoons orange juice and 1 teaspoon grated orange rind.

Note: Perhaps you would like a small booklet "Bake It Easy," which gives other easy ways to make yeast products. The booklet is free—just send your name and address on a postcard to "Bake It Easy," Box 383, Madison Square Station, New York 10, N. Y.

Convenience Foods

Do you often wonder how the cost of convenience foods (those foods which have undergone some preparation ordinarily done in the home and which include such things as frozen individual meals, instant coffee, cake mixes, dehydrated potatoes, canned beef stew, cut-up frying chicken, etc.) compares with the same dishes fully prepared in your own kitchen?

The U. S. Department of Agriculture recently reported that 42 convenience items were less expensive and 116 items more expensive than home prepared foods. However, if you are a typical shopper, you still buy enough of the money-saving items so that your food bill is smaller than if you bought only fresh foods and prepared them yourself. Sizeable savings are made in the food bill when you purchase frozen concentrated orange juice, frozen or canned chicken chow mein, and instant coffee. Other leading cost savers in the convenience food list are frozen lima beans, canned orange juice, canned spaghetti in sauce, canned cherries, and devil's food cake mix. Leading cost-increasing convenience foods include ready-to-serve yeast rolls, frozen chicken and turkey dinners, brown and serve yeast rolls, frozen broccoli, and pre-cooked rice.

With savings possible on frozen orange juice concentrate and with both this product and salad oil plentiful food items, why not try an orange dressing for over a mixed salad, topped with a scoop of cottage cheese. Just combine 1 can of the frozen concentrate with 1 cup salad oil, $\frac{1}{2}$ to 1 teaspoon salt, and a dash of red pepper sauce.

This and That

"Packet for the Bride"

Assembled by the U. S. Department of Agriculture, this includes 10 publications to help the bride in buying food and preparing meals for her husband, and in keeping their clothes and home in good shape. If

you are a recent bride or plan to be married soon, send your request for a free packet to the Office of Information, U. S. Department of Agriculture, Washington 25, D. C.

Canned Whole (Bulgar) Wheat

Do you like the flavor and texture of whole grain wheat but find it inconvenient to cook this cereal? If so, try the canned product now available—cooked whole grains of wheat from which only the outer layers of bran have been removed. It has a delicate whole wheat flavor and about the same nutritive value as the whole kernels of wheat, but requires only a few minutes of heating before use. It is a quick and easy alternative for rice and potatoes and may be substituted in any casserole and meat dish using cooked noodles, rice, or macaroni, and as a stuffing for poultry. The Pilaf featured in Middle Eastern cookery is made by cooking this bulgur wheat in meat or chicken broth with various seasonings.

Uncooked Old World style bulgur wheat under the label Wheat Pilaf is available in 12-oz. packages if you want to cook the product yourself. Enclosed in the package are packets containing spices and chicken soup ingredients to make the recipes which are given on the package.

Herbs in Cooking

Herbs can add interest to everyday dishes, but many cooks hesitate to use them. These herb "pointers" will help you to make the most of them. Mark date of purchase on each package you buy. Keep containers tightly covered and away from bright light and heat, and discard unused portions after a year. Until experience tells you which food and herb combination you like best, use an herb chart as a guide. Stronger flavored herbs usually go best with stronger flavored foods, and mild flavored herbs go best with milder foods.

With baked goods, add herbs before cooking. With soups, stews, sauces, and other simmered foods, flavor is best if you add the herb at least 10 minutes before you serve it, but not more than an hour before. With a butter sauce for vegetables, add the herb to the butter, let stand about ten minutes, then pour over the vegetable.

When beginning to use an herb the best rule to follow is $\frac{1}{4}$ teaspoon for each four servings. If you like it, add a little more next time. Leaf herbs and ground herbs will give the same taste (leaf herbs keep their

(Continued on Page 37)

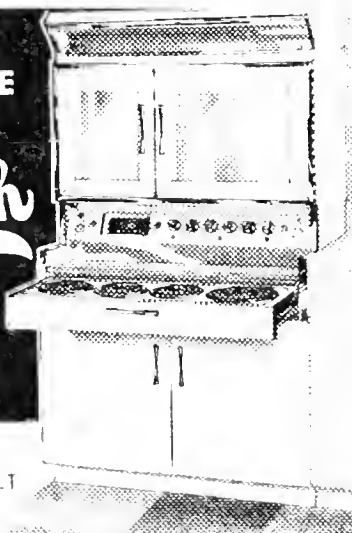
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4871. Slimming separates for larger figures. Printed Pattern includes jacket, top, slacks, pedal pushers, Bermudas. Women's Sizes 36-48. Yardages in pattern. 35 cents

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9197. Cape-collared sheath with pockets, button detail. Printed Pattern in Half Sizes 12½-24½. Size 16½ takes 3¾ yards 35-inch fabric. 50 cents.

9197
12½ 24½

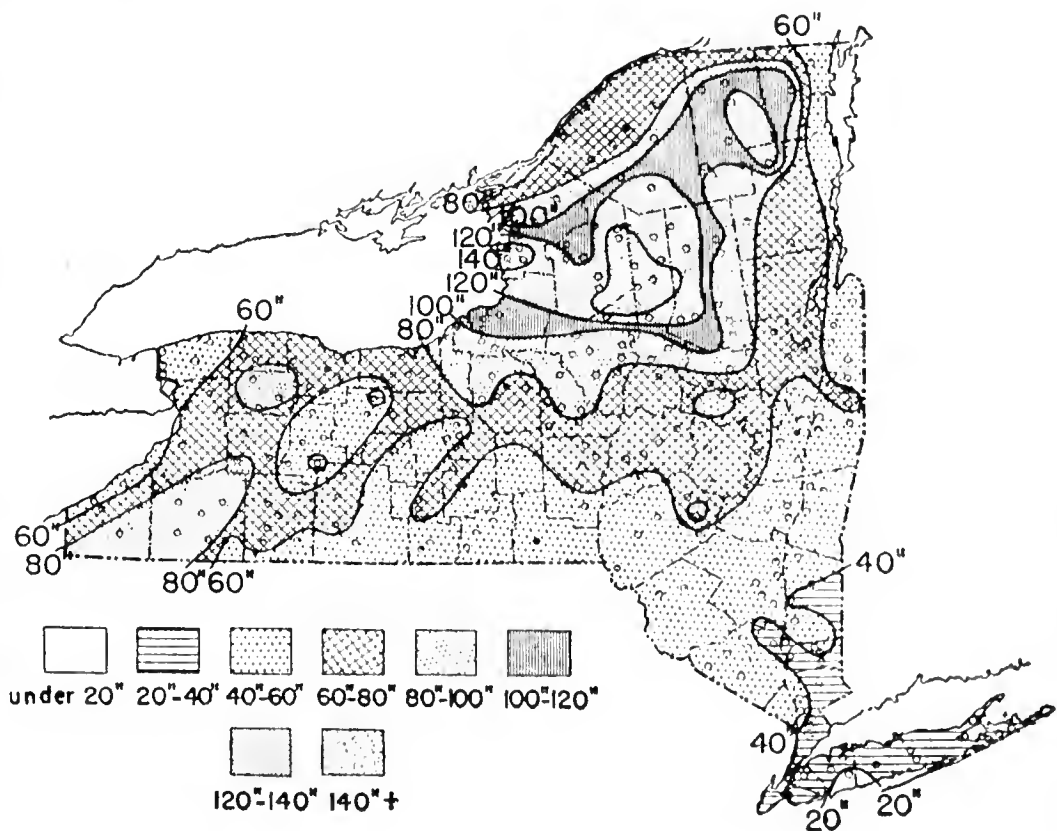
9142
14½-24½

9488
14½-24½

9493
12 20

9043
12-20

4871
36-48



What's Your Mean Annual Snowfall?

Depends on where you live.
In the "snow belt" east of Lake Ontario, you can expect 140 inches or more! In southeastern New York 20 to 40 inches.
To Cornell meteorologists who compiled the map, the "mean" is the mid-point of many years' records. To others, any amount of snow is just plain mean!
For everybody, official forecasts of amount of snow and other weather factors come to you on WEATHER ROUNDUP at 6:25 and 7:15 A. M., 12:15 and 6:15 P.M. over these stations:

FM STATIONS

Auburn	WMBO-FM	96.1 mc.
Binghamton	WKOP-FM	99.1 mc.
Bristol Center-Rochester	WMIV-FM	95.1 mc.
Cherry Valley-Albany	WJIV-FM	101.9 mc.
DeRuyter-Syracuse	WOIV-FM	105.1 mc.
Hornell	WWHG-FM	105.3 mc.
Ithaca-Elmira	WEIV-FM	103.7 mc.
Jamestown	WJTN-FM	93.3 mc.
Niagara Falls-Buffalo	WHLD-FM	98.5 mc.
Olean	WHDL-FM	95.7 mc.
Wethersfield-Buffalo	WBIV-FM	107.7 mc.

AM STATIONS

Auburn	WMBO	1340 kc.	Remsen-Utica	WREM	1480 kc.
Binghamton	WKOP	1290 kc.	Rochester	WHEC	1460 kc.
Boonville	WBRV	900 kc.	Salamanca	WGGO	1590 kc.
Dunkirk	WDOE	1410 kc.	Saratoga		
Elmira	WENY	1230 kc.	Springs	WSPN	900 kc.
Glens Falls	WSET	1410 kc.	Sayre, Pa.	WATS	960 kc.
Hornell	WWHG	1320 kc.	Schenectady	WGY	810 kc.
Ithaca	WTKO	1470 kc.	Scranton, Pa.	WEJL	630 kc.
Jamestown	WJTN	1240 kc.	Syracuse	WHEN	620 kc.
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Northeast Radio Network



Brought to you at 7:15 A.M. by the
Cooperative G.L.F. Exchange, Inc.

PATTERN 9197 is FIFTY CENTS. Patterns 4871, 9142, 9488, 9493, 9043 are THIRTY-FIVE CENTS each. Send orders (with coin) to: AMERICAN AGRICULTURIST, Pattern Department, Box 42, Old Chelsea Station, New York 11, N. Y. Please write name, address, pattern size and numbers clearly.
Extraordinary offer! Get ONE PATTERN FREE—any one you choose in our new Spring-Summer Catalog! Just mail COUPON inside the book to take advantage of this offer. SEND 50c NOW for this marvelous catalog—116 Printed Patterns, 304 design ideas.

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There is a difference in seed! Hoffman takes extra care all along the way in seed production. Rigid standards are maintained. These higher standards mean Hoffman Seeds can turn out bigger yields for you.

Remember, too—your Hoffman Seed Man can help solve your crop problems. His service is without obligation. For the name and address of the one nearest you, write A. H. HOFFMAN SEEDS, INC., Landisville (Lancaster County), Pennsylvania.



Ask to see your Hoffman Seed Man's copies of "Turn Crop Problems Into Profits" and "Better Paying Corn Crops".



Hoffman
FARM SEEDS
"Finest Quality Seeds Since 1899"

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MILLION
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A YEAR!

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SCOTCH PINE (Special Strain)

Fine Christmas Tree Strain. Also French and Spanish.

2-yr. Seedlings 4-8" . . . \$ 5.00 \$ 25.00

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Planting Lists—Xmas Tree Growers' Guide

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J.W. JUNG SEED CO., Station 117 Randolph, Wis.

**JUNG'S
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BIG RED FRUITS

ripen early as July 4th

Regular price 15c per pkt., but to

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Wayahead Tomato, also—

GIANT HYBRID ZINNIAS

which bloom from early summer

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BOTH PKTS. FOR 10c

Our beautiful 56th year

catalog in full color of

newest and best in Seeds,

Bulbs, Plants, Shrubs, FREE!

**NEW CARPATHIAN
WALNUT**

The tree find of the Cen-

tury. Large, delicious thin-

shelled English walnuts.

Perfect for cold winters;

stands 25' below zero. A

beautiful fast-growing

shade tree. Also Hall's

Almond, filberts, Chinese chestnut, Thomas

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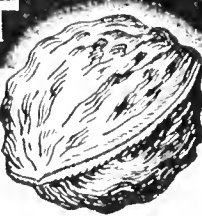
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berries, 36 kinds dwarf fruit trees, best tree

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Harris' WONDERFUL

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Everyone says . . . "It's WONDERFUL!"

Our customers tell us that Wonderful is the sweetest, most delicious corn they've ever eaten . . . and we think you will agree. Big crops of good sized ears ripen over a considerable period, and their tenderness and flavor is unsurpassed. Ideal for FREEZING, too.

SEND FOR OUR FREE CATALOG

If you grow for market, ask for our Market Gardeners' and Florists' Catalog.

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1963 CATALOG now ready

Personal Farm Experience



Don Baldwin and some real corn!

Good Corn

We had one field of silage corn that we figured went 23 tons to the acre this last fall, even though our county was designated a "disaster area" because of drouth. It was lucky that we had it on a field that is usually pretty wet, but plenty of fertilizer helped, too.

We used 500 pounds per acre of 16-8-8 plowed down and then came in with 250 pounds of 5-10-10 per acre with the planter. Atrazine at two pounds per acre pre-emergence did pretty well on the weeds without any cultivation.

The variety of this particular field was a new one—Pa. 475.

—Don Baldwin, Canton, Pa.

Making Sirup

In 1961, we hung 1,850 buckets and made 920 gallons of sirup. We used the recently developed sanitizing pellets in the tap holes; it took a lot longer than previously before the sap began to sour. When we pulled the spiles, we found that some of the pellets were still not entirely dissolved.

Using a power tapper weighing about 20 pounds, we began hanging buckets about the 8th of March and finished about 4 weeks later. Our fuel is wood and soft coal, but we've considered using oil.

An interesting sidelight is that we have two horses for sugarbush work; that's about the only work they do all year. Wheel tractors just won't do what a horse can do in some places in the woods.

We retail all the sirup except that which is dark; this is sold in bulk. Our sirup goes all over the country as people tell their friends about it.

—Roy Temple, Spragueville, N. Y.

Corn Grower

We like plenty of corn silage for our 46 cows. In 1962, we used Cornell M-3 and shot for 30,000 plants per acre on one field, actually ended up with 28,000 by dropping a seed every 5½ inches. Fertilizer included 800 pounds of 10-10-10 per acre, plus 40 pounds of nitrogen sidedressed in a liquid form when corn was about two feet high. We have light soils and believe that plowed down N leaches away pretty fast.

We're interested in TDN per acre and found that those 28,000 corn plants on an acre gave us 8,195 pounds of TDN, in contrast to 7,125 pounds from an acre with 20,000 corn stalks. That corn 15 to 18 feet

tall may look spectacular, but we want TDN because a dairy cow can only hold about so much and we want a "high octane" fuel for making milk. In 1963, we plan to shoot for 25,000 plants per acre for silage corn.

Our silos include a 14' x 50' at the dairy barn and a 12' x 48' at the dry cow and young cattle barn. In addition, we make a cigar-shaped pile of corn silage on top of the ground near the bigger silo chute, pack it with a crawler tractor, then cover it with black plastic. Sand is then thrown on top and it "runs" down the side to draw the 40' x 50' plastic cover tight. Used tires hold down the portion of cover rolled back when it's opened for use.

We figure the mound of silage holds about 60 tons, started feeding on it this year about October 1. Spoilage was limited to a five-inch shell around the outside surface of the stack.

—Burton Inglis, Clifton Springs, New York

Needs Chemicals

We operate a dairy farm in Steuben County, New York, and also grow potatoes on a commercial basis. We think we'd have to quit growing potatoes if we couldn't use chemicals; the consumer demands a quality product of the right size and with no insect damage.

When sod is plowed under ahead of a crop of potatoes, wire worms can be a real problem. We used heptachlor for a number of years in the past and have used aldrin for the past three seasons as a soil insecticide to control wire worms.

When the potatoes are up and growing, we need chemicals to kill insects on the vine. We use strip cropping and when we cut hay on a strip alongside potatoes, the flea beetles and aphids move off the hay

(Continued on Opposite Page)



USE

**The FAMOUS
VITAMIN—MINERAL
SUPPLEMENT**

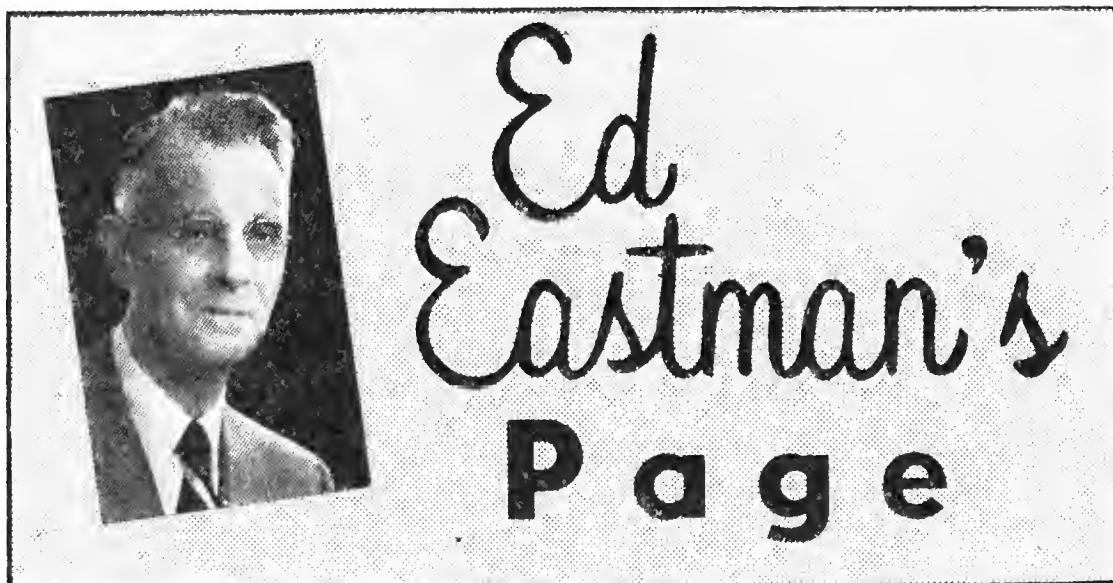
Why pay more? Get KOW-KARE the famous supplemental help for livestock whose Vitamins A, D, E and mineral reserves are depleted — as a result of stress, disease, forced production or nutritional deficiency. Get KOW-KARE today! 3 sizes at your dealers.

• FREE illustrated, helpful Cow Book "Care and Feeding of Dairy Cattle". WRITE:

DAIRY ASSOCIATION CO.
Lyndonville 4, Vermont

ONLY 3c Per Cow Per Day!

Can various forms of milk be used interchangeably in recipes? It depends on the food item being prepared, as some recipes need more and others less of substitute forms. Evaporated milk makes a thicker sauce than any other milk when used in creamed soups, creamed meats and vegetables, most milk sauces and gravies, cornstarch puddings, and cream pie fillings. Fresh skim milk and nonfat dry milk reconstituted make the thinnest sauces. A sauce made with whole milk thickens more as it cools. Baking powder biscuits take smaller amounts of fresh whole or skim milk and nonfat dry milk reconstituted than buttermilk or diluted evaporated milk.



A Pause to Take Stock

IN ADDITION to the necessity of making an inventory of your assets and liabilities, there is another kind of inventory I'd like to visit with you about for a moment.

In counseling with college students, I frequently get them to ask themselves some of the following questions:

Who am I?

Where am I going?

How am I going to get there?

How can I do better?

Am I making the progress that I should?

Why did God put me on earth anyway?

It seems to me that every person, young or old, should pause frequently—especially in these hurrying, worrying times — and take some kind of personal inventory by asking himself questions similar to those I have mentioned. They are especially appropriate at this beginning of a new year.

The answers I get from students are exceedingly interesting, but many of them apparently have never stopped to look into their own souls, or to think of what life is all about. Have you?

Are you so concerned with the problems and complications of everyday life that you have never questioned whether or not you are making any progress either materially or spiritually?

I am particularly interested in the answers young people give me as to why they think God gave them the privilege of life. A surprisingly large number answer, "to

help others." That is just another way of stating the Golden Rule. After all, that's the basic theme or principle in the Christian church and in all great religions. We are on earth to help others. That includes first, help for our families, and then for everyone else with whom we come in contact.

HOW MUCH DO YOU CARE?

AFRESHMAN COLLEGE girl eighteen years old came home to her dormitory one night this fall crying drunk. Before her dormitory mates could get her quieted down and to bed and stop her vomiting, they had to put her under a cold shower.

The saloon keeper who sold her the liquor was within his legal rights because New York State has refused to raise the legal age limit for drinking from 18 to 21. The State is responsible for this girl's condition, and for that of the thousands of other young people under 21 in New York State who drink to excess because there are few restraints.

Excess drinking by upper teenagers, in college and out, goes on all the time in New York State because "booze" is so easily available.

I wonder how those who are responsible would feel if that girl had been their own daughter?

Because I counsel young college students and hear their personal problems every day, I know what I am talking about.

It is as senseless to argue that the drinking age should not be raised because it cannot be enforced as it would be to claim that there should be no traffic or other laws.

Officials of New York State government have been asked, time and again, by the governments of adjoining states to raise the drinking age—as has been done in states like New Jersey and Connecticut. Instead of having the courage to do it, our State officials have alibied themselves by appointing a "study committee." This committee has held hearings in different parts of the State, where the liquor interests and the other minority groups have been very active and vociferous in opposition to raising the age limit.

Of course the decent people of the State are partly to blame for the situation, for they did not appear at the hearings in large numbers. Nor have they made their emphatic opposition known to their representatives in the Legislature.

The churches of the State, most of the farm organizations, and many of the educational associations are in support of this bill. Are you? Would you be if your son or daughter was involved in an accident caused by drinking? These accidents are happening every day to young people under 21.

How much do you care?

WHAT ARE YOU WORTH?

FARMING, most emphatically, has changed from a haphazard occupation to one of big business involving (with full-time farmers) a large capitalization with income and expenses the size of which were undreamed of in our fathers' time.

Yet I wonder how many farmers are awake to the necessity of making a careful inventory at the beginning of each year, and of keeping very careful records of income and expenses.

Do you really know how much you are worth?

Of course, another important reason for making an inventory and keeping accurate records is the necessity of making an income tax report. Sooner or later, unless your records are exact and detailed, a representative of the Federal or

State Revenue Bureau will call.

No businessman would think of starting another fiscal year without taking an inventory of his assets and liabilities—and the modern farmer is certainly a businessman.

WILL THIS YEAR BE DIFFERENT?

NOT SO MANY years ago, there was not much to do on the farm in the wintertime except to cut wood to keep the old "settin'" room round oak stove going and to do the chores. But with the coming of modern farming, like everything else, all that has changed.

For example, when the farmer had or needed little equipment, he could put it in the barn or shed in the fall and forget about it. But with the thousands of dollars in machinery now, he had better not forget it or he'll be out of luck when the busy season opens up.

So, it's a big wintertime job on modern farms to overhaul the tractors and all the other complicated machinery, order needed parts and get them installed, so that there will not be long delays when the spring campaign starts.

Another wintertime job that is increasingly necessary in modern farming is careful planning on what you are going to do during the coming season. These plans should be based on a close study of financial records of the past few years.

I shall always remember two farmer friends of mine in the same neighborhood. One of them always seemed to be ahead of his work, with sometimes a little time to spare, while the other man worked often until dark and on Sundays but was always behind. As a county agent, I had opportunity to study each man's records and work. The successful farmer had a good plan and followed it, the other did not.

One more thought that should be included in farm planning at this time of year: that is that every farmer could have some fun and make his work more interesting by doing a little experimenting each year—trying something on a small scale that he has not attempted before.

Are you doing everything exactly the way you did it last year? How about testing a new crop variety—or approaching any problem from a new and different angle? The sky is almost the limit.

EASTMAN'S CHESTNUT

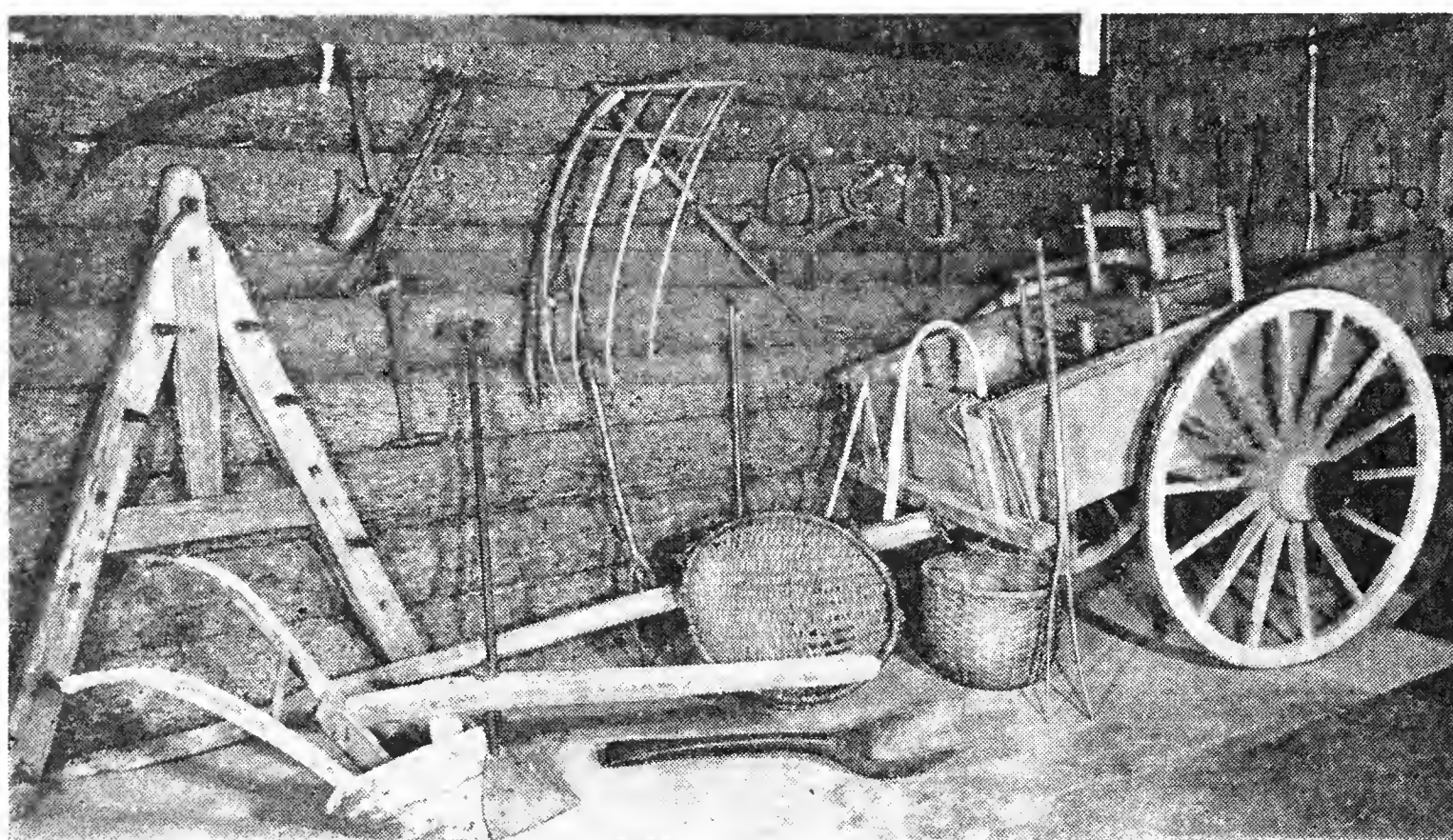
JIM HALL, general manager of American Agriculturist, and Gordon Conklin, editor, were out visiting farmers recently. Incidentally they like best to visit farm homes with beautiful daughters. In this particular case, however, they found no one at home, so they browsed around. Finally they got down to the barnyard, where a calf had managed somehow to get its tail poked through a knothole in a fence.

Gordon scratched his head in a puzzled sort of way and then said:

"For the life of me, I can't figure out how that calf ever got through such a little hole."

Jim looked sort of frustrated too then answered:

"If he could get that far through I can't see either why he couldn't get the rest of the way!"

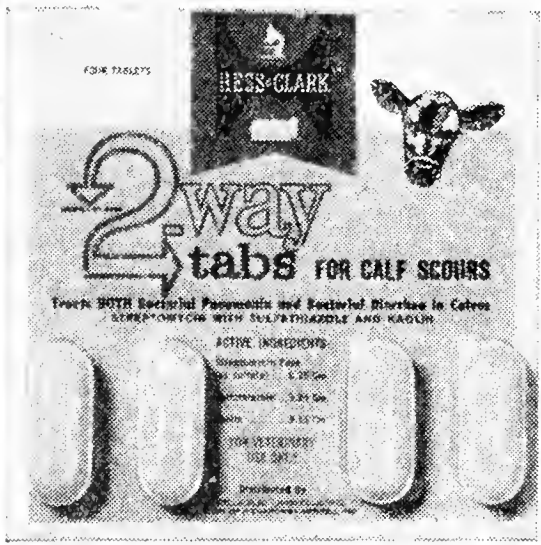


—Picture courtesy Farmers Museum, Cooperstown, N.Y.

Compare these simple tools, in common use on farms within the memory of living men, with the complicated and costly farm equipment necessary today. Can you name them?

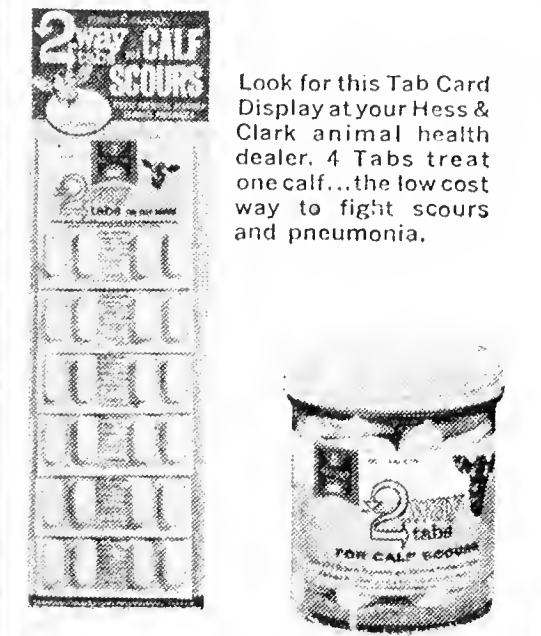
CAN
YOU
NAME
THESE
TOOLS?

here's
double trouble
for calf scours



**SULFATHIAZOLE
STREPTOMYCIN**
helps you win the fight against
calf scours and pneumonia ...
one tab fights both
infections at the same time

Every year calf raisers take a big loss from scours and pneumonia through stunted, weak or dead calves. 2-Way Tabs contain the combination of two powerful drugs ... Sulfathiazole and Streptomycin ... in high levels. Sulfathiazole halts infection in the intestinal tract and in the blood stream. Streptomycin, the powerful antibiotic, fights a large variety of disease organisms. Another ingredient is Kaolin ... soothes irritated intestinal lining besides removing toxins from the body. All three ... in one 2-Way Tab.



For economy ... buy the 50 Tab supply in the new plastic jar.



Service Bureau

ELECTRONIC MACHINES

"Recently an agent called at our home, offering a correspondence course of 30 lessons in the operation of IBM machines, followed by 80 hours of practical training at one of their resident schools. Total cost of the course is \$389.50 with a \$50.00 enrollment fee.

"He made a big selling point of the fact that our daughter's aptitude for this work would be judged from her school records and intelligence tests. If she was not accepted, the \$50.00 would be refunded.

"We paid the \$50.00 and within a week were notified that she was accepted, although, upon checking, we found that no one had contacted the guidance counselor or the school for her records. Upon further checking, we found that no application was ever turned down!

"We have decided to stop where we are and consider the \$50.00 gone for a lesson well learned. However, I would like to save someone else from being taken in and perhaps avoid the disappointment our daughter has gone through."

From the information we have, this particular electronic data processing school is licensed by the Michigan Board of Education. Although they offer training in the use of IBM machines, this is a private corporation and is not connected in any way with the IBM Corporation.

There is a need for persons with training in electronic data processing, and there are a number of bona fide schools offering such training. Unfortunately, there are also many that are operating with inadequate equipment and unqualified instructors.

It is difficult to judge which are the legitimate schools, so it pays to take time to check. Don't be pressured into signing too quickly. Ask for the names of some who have completed the course and get in touch with them. Visit the school. Do not rely on verbal promises; no one can guarantee a job.

SHE'S AMAZED

"It is amazing to hear from so many readers of all ages. I received over 75 answers to my request for the words to Kentucky Belle—from every state of the Northeast. It is good to know there are so many thoughtful folks. I am answering those who made special requests."
—Grace B. Ferns, Springfield Center, N. Y.

SERVICE BUREAU CLAIMS RECENTLY SETTLED	
NEW YORK	
Mr. Frederick J. Smith, Prattsburg	\$25.00 (refund on parts)
Mr. George Stuhlmiller, Berkshire	200.00 (refund on hoist)
Mr. Edward Steffek, Amsterdam	30.00 (refund on course)
Mrs. Wm. Callan, Batavia	3.95 (refund on tree)
Mr. Ernest L. Waite, Plattekill	23.00 (refund on slipcovers)
PENNSYLVANIA	
Mr. Lester M. Carlton, Lake Ariel	5.02 (refund on order)
NEW JERSEY	
Mr. Frank C. Mock, No. Plainfield	18.75 (refund on nursery stock)
Mrs. Chas. Geri, Vineland	50.00 (refund on deposit)
VERMONT	
Mrs. Ellsworth Shield, Groton	5.75 (refund on order)
CONNECTICUT	
Mrs. Adolph Scannaniglio, Goshen	6.00 (refund on book)

Living Facts

1 out of 4 persons each year has an accident requiring medical help or causing disability for a day or more.

44,995,000 people are injured every year.
57% are males; 43% females.

These facts and averages are from the U. S. National Health Survey report of October 1962. Data was collected for two years from July 1959 to June 1961.

Some Benefits Recently Paid

A friend's name may be on this list

Stanley M. Kujawski, Riverhead, N. Y.	382.02	John J. Jarosz, Pine Island, N. Y.	203.38
Auto—injured neck and back		Fell from truck—fractured ankle	
Michael W. Karwowski, Riverhead, N. Y.	588.96	Maurice Goldsmith, Lyndonville, N. Y.	296.50
Bottle of gas ignited—burned hand, arm, body, back		Auto accident—cut head, bruised chest	
Raymond H. Nugent, Riverhead, N. Y.	372.86	Edith Vantassel, Pulaski, N. Y.	652.00
Hit by rain—abrasions & bruises		Crushed by cow while milking	
Cliffie F. Latham, Orient, N. Y.	998.12	Lewis Martindale, Milford, N. Y.	716.03
Fell at home—injured spine		Caught hand in field chopper—amputation fingers	
Mahlon Dickerson, Southold, N. Y.	162.92	Nena L. German, Schodaek Landing, N. Y.	181.85
Put left thumb with knife		Auto accident—multiple body bruises	
Harry J. Edwards, Calverton, L. I., N. Y.	150.00	Harry P. Lawrence, Lishau, N. Y.	292.81
Cut arm with butcher knife		Fell from haywagon—fractured ribs	
John Rychinski, Calverton, L. I., N. Y.	164.29	Lionel Pierce, Rensselaer Falls, N. Y.	236.43
Fell off truck—fractured ribs		Auto accident—fractured ribs, cut mouth	
Elisha Habermann, Orient, N. Y.	556.67	Clifford Holmes, Stillwater, N. Y.	138.57
Stepped on rusty nail—lacerated infected foot		Gored by bull—fractured ribs, fingers injured thighs	
E. H. VanDerwerken, Center Moriches, N. Y.	158.57	John Risse, Middleburg, N. Y.	1062.70
Auto accident—injured ribs, neck, knees		Auto accident—broken back, head injury	
Albert Radzewicz, Altamont, N. Y.	170.50	Fred J. Ely, Montour Falls, N. Y.	175.00
Jumped off wagon—fractured ankle, bruises		Kicked by cow—broke arm	
Pearley E. Michael, Belfast, N. Y.	657.28	Stanley Grabowski, Interlaken, N. Y.	135.72
Fell on ice, injured knee		Auto accident—cuts & bruises	
E. L. Driscoll, Sr., Whitely Point, N. Y.	702.61	Joseph Hauryski, Sr., Campbell, N. Y.	988.90
Thrown from tractor—fractured ribs, vertebra		Auto accident—fractured forehead, cuts & bruises	
James W. Lippert, Allegany, N. Y.	505.36	Joseph Hauryski, Jr., Campbell, N. Y.	398.39
Caught between truck & post—fractured pelvis		Auto accident—multiple cuts, injured hip	
Wilbur Burke, Port Byron, N. Y.	591.27	Harry Campbell, Nichols, N. Y.	196.06
Thrown from wagon while loading wheat—injured ankles, back		Hit by axe—compound fracture kneecap	
Merle E. Cady, North Caymer, N. Y.	324.57	Charles Carson, Berkshire, N. Y.	502.60
Hit by milk can—injured back		Tractor accident—fractured shoulder	
Mabel Reese, Pine City, N. Y.	529.51	Norman S. Benson, Groton, N. Y.	192.09
Auto accident—injured leg, shoulder		Fell off step ladder—fractured ribs	
Nelson Adams, Plymouth, N. Y.	373.33	Loren C. Wellman, Trumansburg, N. Y.	455.90
Struck by auto—fractured leg, cuts & bruises		Slipped while shoveling grain—fractured back	
Paul Knapp, West Chazy, N. Y.	114.00	G. Edward Mackey, Sr., Milton, N. Y.	261.02
Foot caught in hay bower—severe injury to foot & ankle		Caught in drive shaft—fractured leg, bruises	
Reuben L. McWhirt, Crayville, N. Y.	170.00	Lloyd A. Durban, North Rose, N. Y.	455.50
Truck accident—injured spine		Train hit truck—broke ribs, cuts & bruises	
Frank E. MacIntire, Jr., Cortland, N. Y.	366.21	Robert Tucker, Arcade, N. Y.	360.00
Hit by combine cutting bar—severely cut leg		Tractor accident—injured back, shoulder, arm	
Chauncey Whitney, Bloomville, N. Y.	1242.86	Frank A. Bloom, Dundee, N. Y.	185.00
Caught in hay baler—broke arm, elbow, cut artery & tendons		Mower spring back—fractured leg	
Christopher Murphy, Jr., Amenia, N. Y.	117.86	Lee Harkness, Gillett, Pa.	480.02
Hit by truck tailgate—injured foot		Baler swing and hit leg—compound fracture	
Harold L. Wittmeyer, Chaffee, N. Y.	320.03	Frank C. Phelps, Nelson, Pa.	321.69
Stepped on stone & fell—fractured foot		Ran over by truck—fractured ankle	
Kelvin Gale, Bonabay, N. Y.	206.77	Grace T. Starkey, Millerton, Pa.	252.00
Using chain saw—fractured & cut toes		Fell in woodchuck hole—broke leg, injured ankle	
William Vosburg, Jr., Gloversville, N. Y.	105.99	Helen L. Baker, Knoxvile, Pa.	617.65
Caught in power take off shaft—deep cut leg		Auto accident—severely cut knee, chin, injured back	
Floyd Froebel, Corfu, N. Y.	295.30	Kenneth F. Golden, Gillett, Pa.	110.71
Gored by bull—burned back		Kicked by horse—cut and bruised leg	
Herman L. Jeffers, Dolgeville, N. Y.	513.26	Richard E. Esaias, Snedekerville, Pa.	307.11
Auto accident—injured chest, ribs, hip		Crushed by cow—fractured back	
Helen Knowlton, Gouverneur, N. Y.	210.32	Seth Morley, Genesee, Pa.	135.00
Crushed by cow—cerebral concussion		Kicked by cow—fractured hand	
William A. Zehr, Carlisle, N. Y.	100.00	Elbert Obert, Centerville, Pa.	410.00
Thrown from tractor—fractured spine & leg		Tractor overturned—fractured pelvis, leg	
Loren J. Widrick, Lowville, N. Y.	807.55	Merle Grabar, Union City, Pa.	381.67
Playing ball—fractured leg		Auto accident—cut head and hip	
Alston Stoddard, Lowville, N. Y.	1275.47	Howard W. Baker, Tunkhannock, Pa.	100.00
Fell on back—serious knee injury		Fell from ladder—fractured hand	
Leon Patrick, Leicester, N. Y.	826.66	Dale R. Keen, Waymart, Pa.	172.50
Cow crushed against wall—fractured back		Burned hand lighting kerosene heater	
Claude M. Rober, Morrisville, N. Y.	215.05	John Schtasta, Jermyn, Pa.	391.43
Kicked by cow—fractured ribs		Auto accident—injured chest & body	
Edward Marks, Brockport, N. Y.	225.00	Jacob Snock, McAfee, N. J.	438.57
Thrown from car—fractured back		Auto accident—injured head, hip, back	
Frederick Foster, Mendon, N. Y.	179.26	John T. Goursen, Andover, N. J.	129.50
Kicked by cow—fractured leg		Thrown from tractor—fractured back	
Gary L. Hare, Middleport, N. Y.	295.49	Joseph Goodenough, Columbus, N. J.	277.58
Auto accident—deep cuts of nose & scalp		Hay wagon tipped over—fractured ribs	
Karl Diehl, Deaneboro, N. Y.	722.56	Maryanna C. Prohaska, Trenton 20, N. J.	1200.00
Cleaning mower—lacerated fingers		Fell on floor—fractured hip	
Gerald C. Gaster, Fort Plain, N. Y.	1508.25	Kenneth H. Garrison, Elmer, N. J.	886.90
Ran over by wagon—fractured spine		Auto accident—fractured shoulder—fractured back	
A. Pearl Waters, Fabius, N. Y.	775.00	B. Carlton Haines, Thierface, N. J.	115.15
Fell—fractured hip		Fell on truck—fractured back	
Raymond C. Phillips, Canandaigua, N. Y.	570.00	John D'Agostino, Hammon, N. J.	220.00
Cow kicked—splitter off back hit arm—compound fracture		Fell on ice—fractured shoulder	

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(In New York State)

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FOR LIFE, ACCIDENT & HEALTH INSURANCE (In Other States)
GENERAL OFFICES: CHICAGO, ILLINOIS

SAVINGS BANK BUILDING

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Keep 'em milking with "Double-action" Pen-FZ



Pen-FZ comes in a handy 6 pack of syringes

Pen-FZ KILLS AND DESTROYS MASTITIS GERMS . . . CONTAINS EXCLUSIVE NITROFURAZONE

Pen-FZ is the only mastitis treatment that combines nitrofurazone . . . a germ-starving nitrofur . . . with penicillin.

"Double-action" Pen-FZ kills and destroys the four major types of bacteria that cause most mastitis. Pen-FZ is consistently effective because germs do not build up resistance to nitrofurazone.

Help prevent "mastitis flare-up" during the lactation period with good management, good sanitation and an effective treatment program using "double-action" Pen-FZ.

Milk taken from treated animals within 96 hours after the latest treatment must not be used for food.

A scientific clinical investigation shows that,*

"Adequate treatments with nitrofurazone-penicillin combination has reduced clinical mastitis to a minimum and, through a systematic program of testing and treating, *Streptococcus agalactiae* may be eliminated from the herd."

*Data available on request

It is further stated that,

"Another significant factor to be pointed out as a result of the regular testing and treating problems is that, in addition to the decrease of clinical mastitis, there were increases in total milk production and a decrease in the monthly bacterial counts."

Treat mastitis TODAY with "double-action" Pen-FZ. Help cut production losses and get your cows back in the milking line fast.

Prevent freshening flare-up

The best time to treat cows that have a history of mastitis is during the dry period. Treating dry cows with Pen-FZ helps prevent freshening flareup, and eliminates the need to hold milk off the market.

Keep your cows milking with Pen-FZ for mastitis. Available at your local drug, feed or farm supply store.

PUT MORE HEALTH INTO LIFE
BY STARVING GERMS TO DEATH


nitrofurans

HESS & CLARK, Ashland, Ohio
Division of Richardson-Merrell Inc.

Founded 1842

AMERICAN AGRICULTURIST

A Constructive Force in Northeastern Agriculture

FEBRUARY 1963



Farmers are asking about

Mixing Feed on the Farm

By Lee Snyder*

HOME GRINDING and mixing of grain feeds has been practiced in one form or another for many years in the Northeast.

It may consist of simply feeding a high protein supplement on top of ground oats, wheat, barley or corn; or it may be complete mixing of the basic ingredients contained in the ration. Before deciding to do home grinding and mixing, consider thoroughly several questions.

First, does the volume of feed required annually justify the investment in equipment, an investment that will depend on the degree of mixing? If you intend to mix a high protein supplement with homegrown grains, only a hammer mill (or other type of grinder) and a mixer will be required. But if you intend to mix your own ration "from the ground up," then delicate metering devices, accurate scales, etc. will be required. In any case, a bulk stor-

age bin and adequate space must be provided. Men closely allied with the feed industry suggest that at least 100 tons per year must be fed before home grinding and mixing should even be considered.

Quality Control

How does the feeder check the quality of the feed? The larger feed manufacturers have laboratory services available to constantly check on feed quality. Some antibiotics are added at the rate of less than **one ounce per ton** of finished feed. Can you be sure that minor and trace ingredients are added in the proper amounts and mixed so that each pound of feed contains the same amount?

Where will the feeder obtain the services he now obtains from the dealer? Delivery of feed ingredients may be slightly "sluggish" if the farmer is mixing his own feed. Most feed companies, however, have decided to join the farmer rather than fight him.

The dealers are understandably reluctant,

though, to hold a large stockpile of ingredients that decrease in quality over extended periods of time. Some vitamins, antibiotics, and trace minerals start to break down after four to six weeks. This is where quality control comes in. The rapid turnover of manufactured feed is a service by the dealer, even though it is not usually considered as such.

Can the feeder buy the ingredients in large enough volume to obtain them at a sufficient discount? It has been stated that on the average the farmer pays about 14 percent more for the ingredients than does the commercial manufacturer. This, of course, varies with the size of operation.

Can you realize a return on your investment? Or could this investment be put to bet-

(Continued on Page 24)

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Short of Roughage?	11
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* Agricultural Engineer, Pennsylvania State University



RIDING HORSES

GLF'S NEW FEEDING RECOMMENDATIONS—GLF Nutritionists are now recommending three new feeding programs for active riding horses. Each will keep an energetic horse vigorous and strong.

Three new Squire Applegate feeds have been formulated to fit each of these feeding methods.

1. **NEW TRIM** is designed to be fed with hay. TRIM (with hay) provides all the energy, proteins, trace minerals and vitamins to keep any horse in sound, sleek condition.

2. **CHOICE** is a complete horse ration. It is a new concentrate formula balanced with the right amount of alfalfa and beet pulp to provide the necessary fibre. All pelleted for high palatability. Ideal for all horses. Easier to handle than hay and grain. Helps prevent heaves.

3. **NEW TONE** is a mineral and vitamin supplement. It can be fed to insure the health of those horses whose owners use a hay and oat program. (TONE will make up for any nutritional deficiencies caused by variations in the quality of hay, oats, or simple grain mixtures.)

FEED AMOUNTS—The amount of feed (roughage and grain) depends strictly on how much exercise your horse gets. GLF is printing a leaflet entitled "Horse Sense." Ask for a copy at your local GLF.

Keep your horse fit. Make your next order one of the new Squire Applegate horse feeds—New TRIM, CHOICE, or TONE. Cooperative GLF Exchange, Inc., Ithaca, N. Y.

GLF HORSE FEEDS



SPECIAL GLF HORSE PORTRAIT OFFER—For a limited time only you can get two handsome 11"x17" sepia reproductions of original Jeanne Mellin horse portraits. Select your favorites from the 9 breeds listed below...each is well suited for framing. Just fill out coupon and mail with one tag from Squire Applegate new TRIM, CHOICE, or TONE and 50 cents in coin (no stamps please).

American Albino	Morgan	Quarter Horse
American Saddlebred	Palomino	Standardbred
Appaloosa	Pinto	Tennessee Walking Horse

Mail to: Horse Sense, Coop. GLF Exchange, Inc., Terrace Hill, Ithaca, N. Y.

Your choices: _____
(NAME OF BREED)

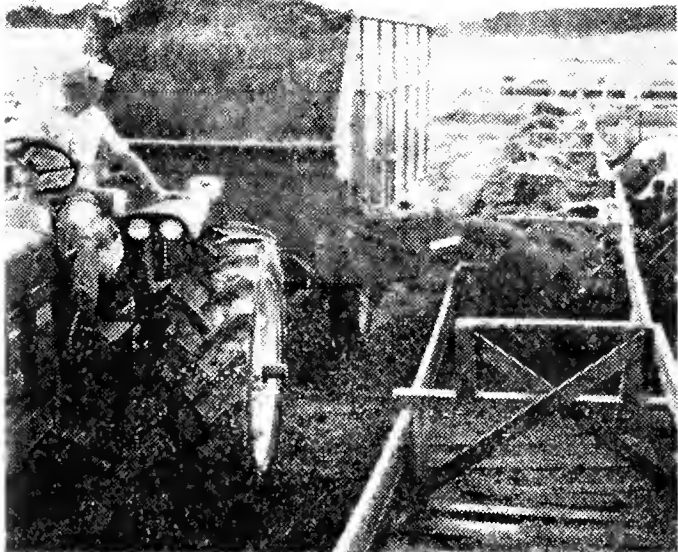
Your Name _____
(NAME OF BREED)

Address _____
(PLEASE PRINT)

Offer good only while supply lasts.

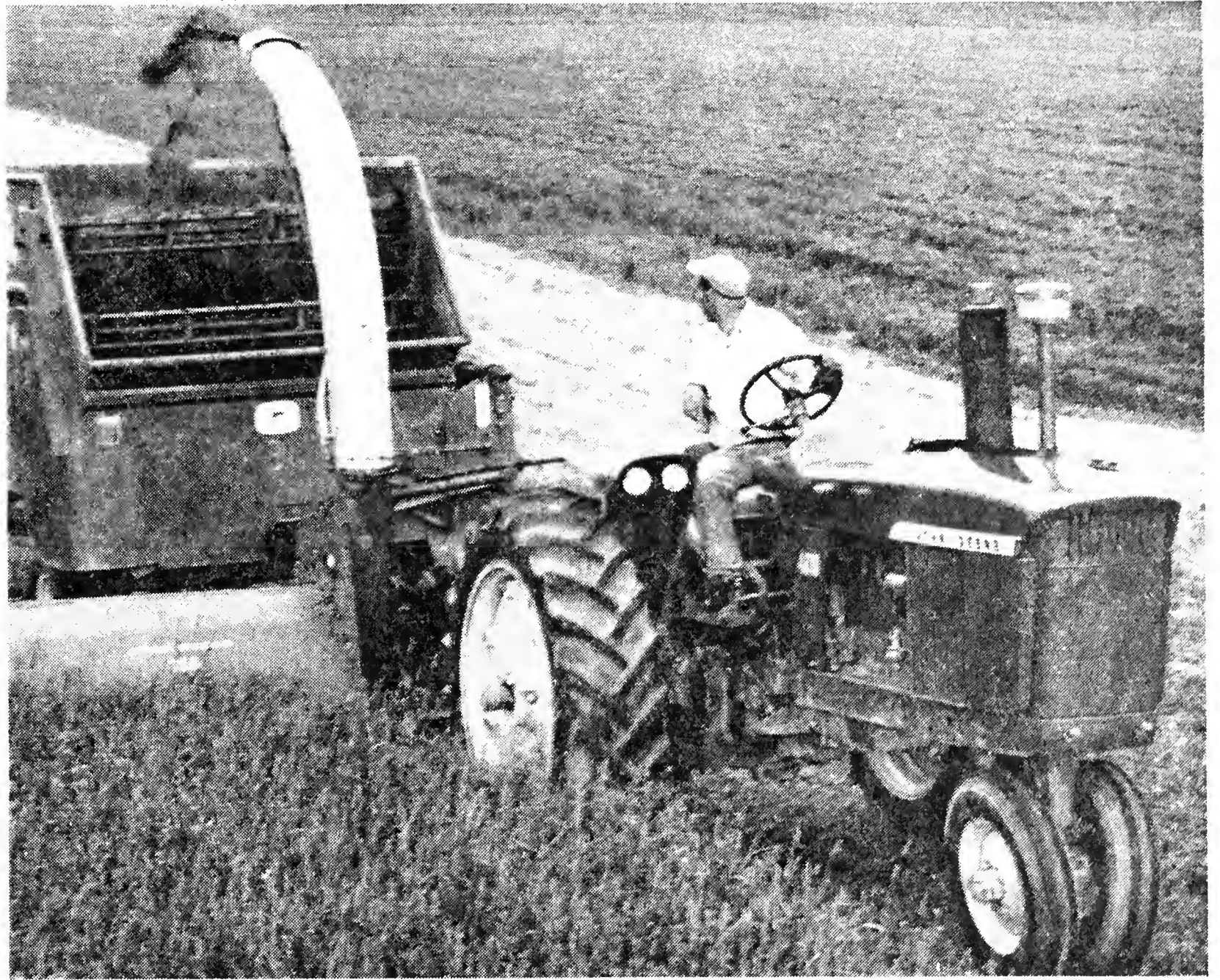
Michigan dairyman: Charles Hagon has a 267-acre dairy farm near Gaines, Michigan. Of the 108 dairy cattle he feeds, 54 produce over a ton of milk per day. Mr. Hagon was one of the first farmers in his area to start the practice of bringing pasture to the cows. His goal: to farm the 267 acres . . . milk 70 cows, filling the milk tank, and have enough milk left over to feed their calves.

"One Chuck Wagon load fills our 120-foot bunk."



"I like the extra knives in the 16-A Chopper."

"The 16-A Rotary Chopper is a quiet-running machine and easy to handle, too."



**"My John Deere
Green-Feeding Equipment has
boosted production...saves time"**

"Seven years ago we took our cows off the field and put them in the feedlot and we're glad we did. My John Deere Green-Feeding Equipment has boosted production and saves time, too. Milk production increased because the cows got more and better feed regularly. We chop with the 16-A Chopper and feed with the Chuck Wagon in less time than it used to take to get the cows. We're also feeding our cows on fewer acres.

"The 16-A Rotary Chopper cleanly picks up the crop, even on rolling fields. It's easy to hook up, maneuver, and easy to set for the length of cut I want.

"The 115 Chuck Wagon unloads fast and even and does a fine job of mixing soybean meal into the feed. We also appreciate the ease in switching from side to rear unloading or vice versa and the five unloading speeds.

"The reason we look to John Deere for equipment is because our dealer's service is outstanding. John Deere Equipment is also good equipment that does good work."

John Deere design,
dependability, and dealers
make the difference



JOHN DEERE

3300 River Drive, Moline, Illinois

Like Charles Hagon, you can look forward to the many advantages green feeding offers—especially with a John Deere Rotary Chopper-Chuck Wagon team. Whatever your forage equipment needs, look to The Long Green Line of Customized John Deere Equipment. When you're ready to buy, use the John Deere Credit Plan.

Editorials

By Gordon Conklin



PARADOX

ONCE UPON A TIME all the animals in a certain farmyard decided that their problems were too much for them. They gathered around their handsome leader, the Bull, who stirred them by saying, "Ask not what the farmyard can do for you; ask rather what you can do for the farmyard!"

"But," pleaded the Cow, "I am producing more milk than is being consumed."

"Cut production," said the Bull, "and we will pay you well for every pound not produced!"

"What about me?" said the Mustang. "How can I have a bale in every manger and a lump of sugar in every hand?"

"Produce!" replied the Bull. "We will see to it that cheaper credit is available, and that reclamation projects go full speed ahead so you can have water for your land. Add lime, improve woodlands, save your soil, make better seedings. We will reward you well for every such practice receiving our approval."

"The problem of our group is not enough jobs," said the Horse. "Our grasping employer uses the flimsy excuse that he cannot operate a business where work rules require four horses to pull a buggy containing a feather bed."

"I'll appoint a fact-finding committee," said the Bull. "Meanwhile, your minimum wages will be raised as of today; unemployment benefits will also be increased and extended. Fear not, we know that work exhausts you."

The Rooster, who owned large holdings, said:

"Our profits are being squeezed to nothing. How can we go on paying for milk not produced, reclamation projects, approved practices, feather beds, unemployment insurance, and higher taxes?"

"Free enterprise," roared the Bull, "is the cornerstone of our Way. It's the magic ingredi-

ent of our entire progress. We will lower taxes!"

"But," said the Polled Hereford, "I have taken a survey and find the majority in favor of lower taxes only if there are no more budget deficits."

"All of you mean well," replied the Bull, "but your education is not complete on these matters. To spend more than you take in is the magic ingredient of growth in our entire economy."

"I've been doing that myself," said the Pig, "but now the Infernal Revenue Service informs me I owe them a thousand shekels in back income tax—and I can't pay!"

"Pay up within 30 days," thundered the Bull, "or we will send you to the stockyards and make your family ineligible for any more free corn from the Ever Abnormal Granary! It is my duty to enforce the principle that democracy cannot function without the financial integrity of every citizen."

The Little Red Hen clucked worriedly. "It looks to me as though we are being bribed with our own money. My chicks and I have worked hard to produce wheat, but what do we do now that we have too much?"

"Free enterprise," said the Bull, "is the cornerstone of—wait, I have the wrong page here. Now then, the answer to your situation consists of complete regulation of your quantity of production and management decisions. We are developing a new program that will solve your problem—remember that freedom is a nice theory, but it doesn't pay the bills."

The wise old Owl, who had been listening with a puzzled frown from his perch in a nearby oak, spread his wings and flew away, shaking his head and muttering "Whew-w-w-w"...

WELL DONE!

IT WAS MY privilege to know Arthur Moody, author of our "Country Pastor" column, only a few years. He has gone on to those larger dimensions of life about which he so often spoke.

His days were living proof that a man with spiritual depth can live with courage and strength — and with the ability to laugh — even midst the riptides of dissension that beset our time.

With his active mind, Arthur wrote items for American Agriculturist at a pace that exceeded their rate of publication. As a result, we who remain in the arena of living will continue for a number of months to share the wisdom of one who saw so much of what we are experiencing.

TO GO BEYOND

MY EARLY YEARS were lived before the welfare state, a fact for which I am grateful. Although it relegates me to the old frontier, and to the ranks of those fuddy duddies who are neither "hep" nor "far out," it gave me a glimpse of values held to be important by previous generations.

Ours was a hill farm in the Southern Tier of New York State, with but two soil types. Volusia has an impenetrable hardpan at eight

inches of depth, Lordstown has bedrock at about the same level.

We milked cows, made syrup, worked for the neighbors—anything to earn an honest dollar. It was a real event when one of we four kids could scrounge out a nickel for an ice cream cone.

We just didn't realize how underprivileged we were; by the standards of today our family would have been the object of pity and eligible for a number of programs designed to aid the "indignant indigent." Poor souls; we didn't even know we were downtrodden!

Our parents did not bemoan their fate — but they had a vision that "their children could go beyond them." From their unyielding acres they wrested enough to carry the major share of the load of sending four children to college. At least in terms of material living standards, all have since "gone beyond them."

I visited the cemetery the other day where Mother and Dad lie buried side by side. As I looked out across the peaceful valley toward the flaming sunset, I mused about life. Could it be that their struggle—and the attempt of their children to take part in that struggle—was more meaningful than an easier road? I remain puzzled by the folks who see tragedy in all hardship.

It is desirable to change the way we do things; perhaps through all the change we can still retain the opportunity—and the incentive—for our children "to go beyond us."

GARDEN STATE TAXES

SOME OBSERVER of the passing parade once remarked that there are at least two sure things—death and taxes. Judging by recent years, it seems this should be amended to death and **higher** taxes.

One New Jersey farmer with 400 acres of productive land recently told American Agriculturist New Jersey Editor Amos Kirby that his real estate taxes last year were \$6,000. Another dairyman, this one with a 50 cow herd, told him that his taxes amount to \$50 per cow per year.

According to Dr. George Luke of Rutgers University, farm real estate taxes in the State take between 40 and 50 percent of net cash farm income; in the low farm income year of 1959, this figure hit 65 percent. This, he says, is approaching the point of confiscation. Of 1,062 farmers contacted by Dr. Luke on the subject, only 16 percent favored a State income tax, but 84 percent wanted some form of sales tax.

It's a fact—farmers can be taxed out of business! This is particularly true where urban developments move into farm areas and land values begin to move up on the basis of potential value for industrial sites and building lots.

Farmers in New Jersey don't have enough votes to put in your eye compared to non-farmers. They might as well forget trying to fight the outward growth of urban communities and try instead to obtain greater justice in their State's system of taxation.

First, a broader tax base is a must—real estate is carrying too much load already. A sales tax or an income tax are methods widely used in other states; farmers should be willing to compromise if they're convinced that whatever course taken will ease up on the real estate throttle.

Secondly, farm land being used for farming should be taxed on the basis of agricultural use until it is transferred to some other use. A capital gains levy in the year sold would give the tax collector his slice of that melon!

New Jersey—the bee is on you!

AMERICAN AGRICULTURIST

A Constructive Force in Northeastern Agriculture

Founded 1842 Volume 160 No. 2

Frank E. Gannett, Chairman of the Board 1934-1957

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AA's Farm Dollar Guide

AFTER MARCH 1, 1963, New York farmers who sell meat must have it killed in a state-inspected slaughter house. Farmers can kill animals on the farm for their families and for hired men, but not for sale.

ROUND KERNELS OF HYBRID SEED CORN have the same inheritance as flat kernels. Too often they have been discarded, but, when sold, the price is lower. One way to cut corn-raising costs is to get round kernels when buying seed corn. The use of the correct planter plate designed for kernel shape is extremely important.

MILK HEARING is scheduled to start at Philadelphia on March 4 to consider merging of Philadelphia and Wilmington milk Orders, as well as the inclusion of South Jersey. ALSO for establishing a marketwide pool instead of individual handler pools as at present.

GRASS SEED MIXTURES containing 10 to 15 grasses and legumes, with a suggested seeding rate of 35 pounds per acre, are commonly offered to Northeast farmers. Tests at Cornell University indicate no benefit either from many varieties in the mixture, or the heavy rate of seeding. A simple mixture tailored to your location and soil is likely to be cheaper and better.

DAIRY COW NUMBERS (U.S.) on **JANUARY 1** were about 2 percent under a year ago. Nevertheless, 1963 milk production is forecast as up about 1 percent. Per capita consumption of dairy products likely to be down a little, but TOTAL consumption is expected to be up by about 1½ billion pounds. Government purchases in '62 were equivalent to 11.3 billion pounds of milk; likely to be higher in '63.

A **MAGNET**--say 3 inches long and 1 inch in diameter--in a cow's rumen lessens danger from swallowed hardware.

THE PROGRAM OF LEASING FARM EQUIPMENT rather than buying it has been increasing for several years. One advantage is the smaller farm capital investment required. Leasing schedule recommended by the Farm Equipment Retailer's Association is: one day, 1 percent of new delivered price; one week, 5 percent; one month, 15 percent.

THE INSECTICIDE SEVIN has been cleared for the control of northern fowl mite on hens when used according to label directions.

OAT YIELDS IN THE NORTHEAST DROP, on the average, 1½ bushels per acre for every day sowing is delayed beyond late April.

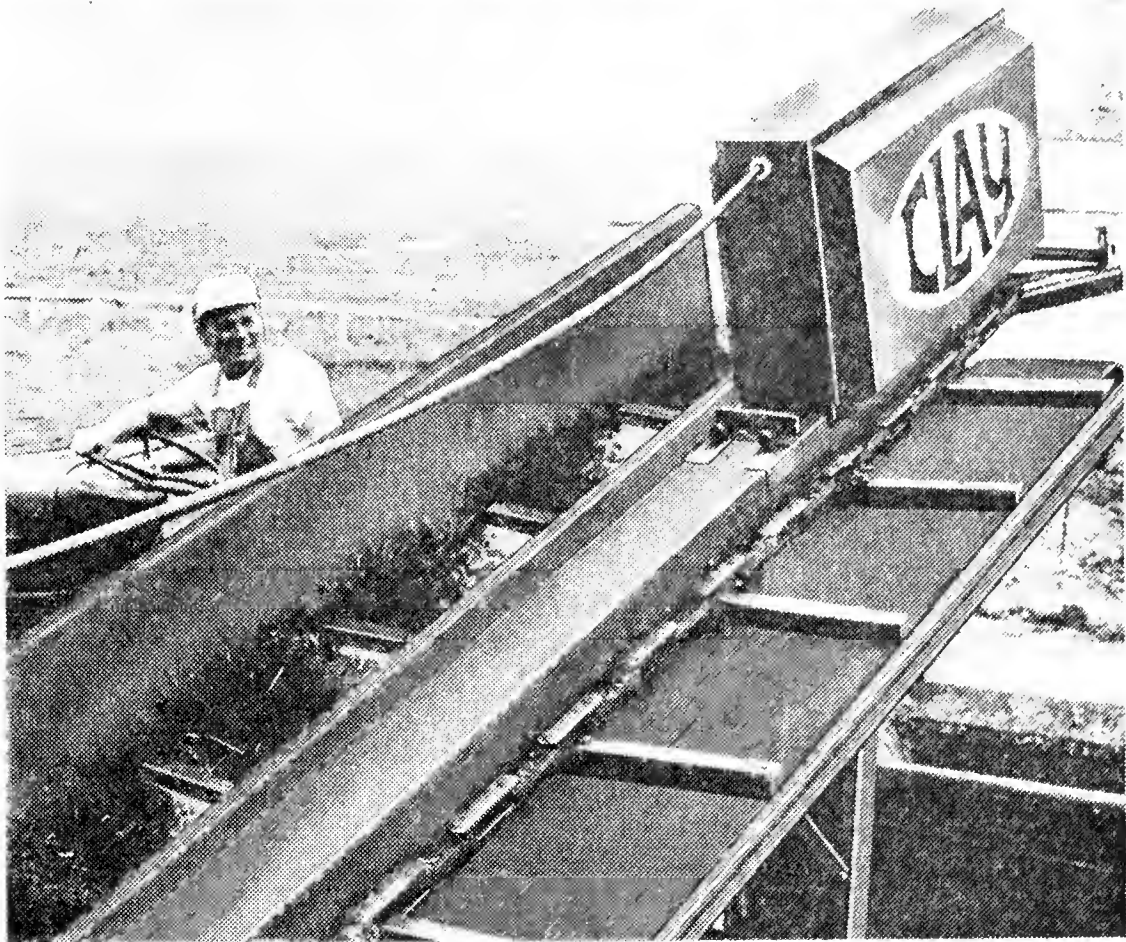


The Song of the Lazy Farmer

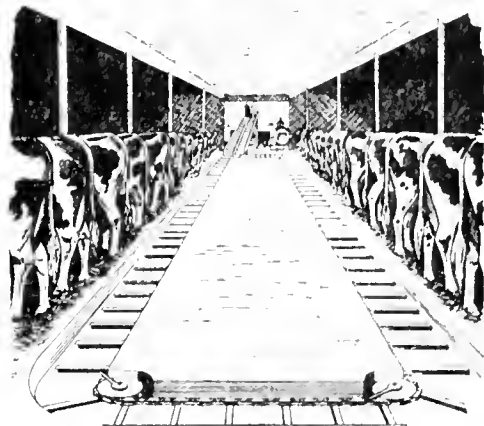
ANOTHER new year's under way and this time I'm resolved to lay aside all tendency to be the least bit mean or ornery. I know I say this ev'ry year, while neighbor and Mirandy sneer, but I'm determined that I'll be a brand-new man in sixty-three. I'm going on three score and ten, which means the time is nearing when I'd better think about my fate and try, before it gets too late, to put some good marks in the book; if my old ways are not forsook, the record's apt to look so black St. Peter's sure to turn me back.

So starting now Mirandy's got a man who's Johnny-on-the-spot to help whenever there's a chance, to all her tunes I'll gladly dance. I'll get up first to start the fire, no longer will she have to hire someone to help with housework or assist with any outside chore. From now on she will be the one if any loafing's to be done; this year she even might be cheered when finally I shave my beard. The very thought of all that change is so exciting and so strange that I think I will have to go and rest in bed an hour or so.

a real Back Saver!



... today's heaviest
most durable chain
**over 8 lbs.
per foot**



CHECK WHAT CLAY OFFERS YOU . . .

- ✓ **Greatest Time & Work Saver**—Just push a button—watch your Clay Barn Cleaner handle your dirtiest, toughest daily chore! Loads the day's accumulation of manure — liquid and all — in your spreader in minutes. Can save you up to 193 hours of back-breaking pitching and shoveling some 340 tons of manure in a year's time (based on 40-cow herd).
- ✓ **The Most Durable Features**—Look at these Clay Barn Cleaner Exclusives:
 - Heaviest chain — Pullmore with average 15" paddles weighs over 8 lbs. per ft. Resists wear, stretch, corrosion.
 - Heavy - duty ¾" straight shoulder pins welded to flat chain links so they can't turn —or wear.
 - 1¾" cold-rolled steel corner pins anchored by heavy steel channels.
 - Big 30-pound cast iron corner wheel with 7 full-depth reinforcing ribs.
 - Extra-rugged 12-gauge steel elevator . . . built like a battleship. No seams at bottom of trough for extra years of service.
 - Safety slip clutch and bolted sprocket hub for double overload protection.
- ✓ **Three Heavy-Duty Models**—There's a Clay Barn Cleaner that fits your *exact* needs . . . and your pocketbook!
- ✓ **Easiest Cleaner To Own**—For only \$1.27 a day you can own a Clay Scotsman Cleaner. This includes down payment, installation costs—everything; assuming 3-year pay plan. (Write for Purchase Plan details).

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Send FREE Barn Cleaner Buyer's Guide—also Catalogs on the following.

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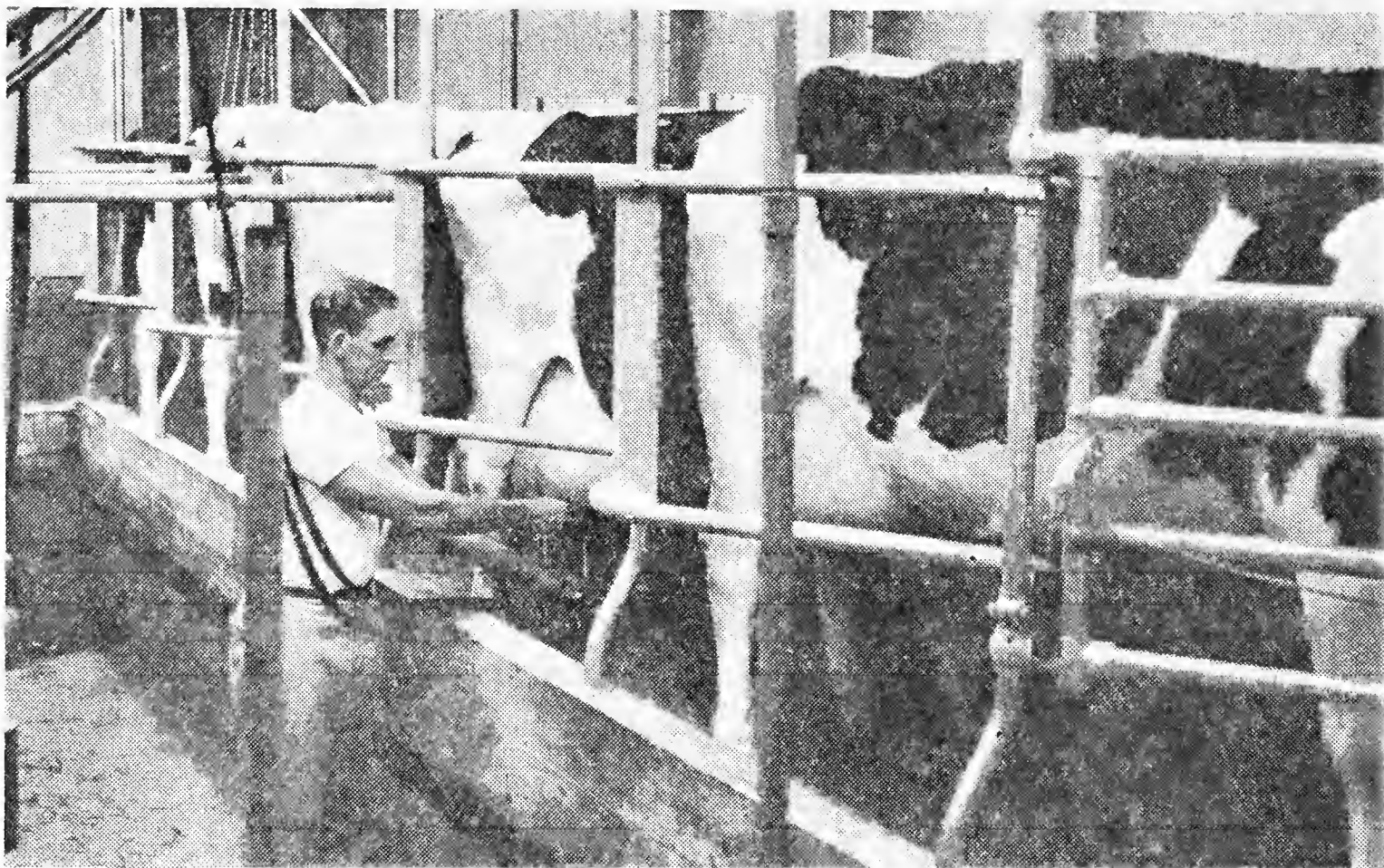
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City _____ State _____

More cows need more room

These dairymen decided to expand the size of their herds. Here's how they did the job of providing more barn room and at the same time gaining greater efficiency of operation.



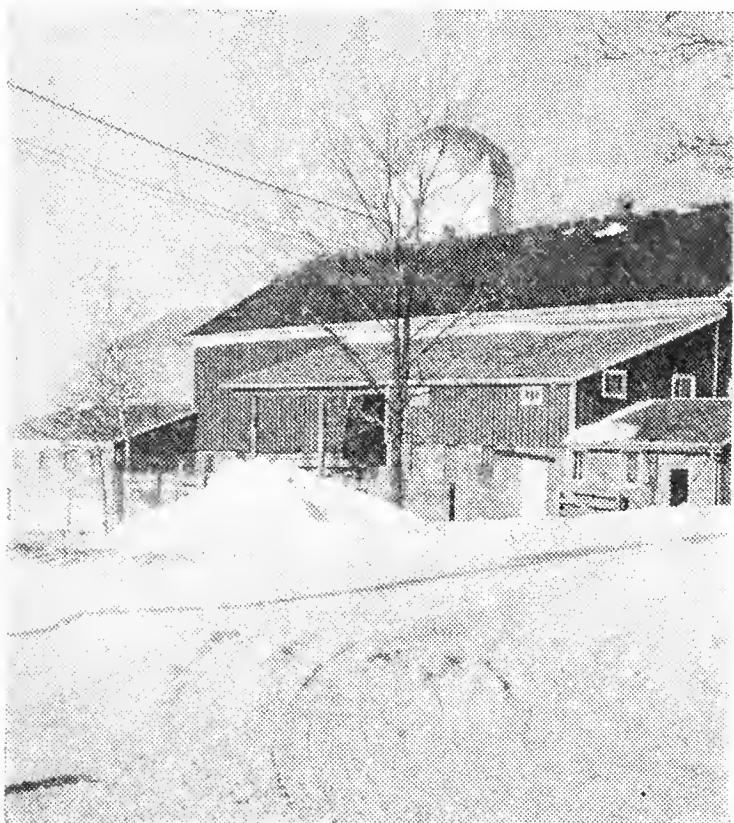
Don Hanks uses a stanchion barn with a herringbone milking parlor.

—Courtesy NYABC

by Hugh Cosline



Erwin Kelly and his bunker silo 26' x 150'. Cows eat grass silage here on a self-service basis.



Ralph and Ronald Space added a milking parlor and milkhouse in right foreground, more stanchion room at left.

MANY DAIRYMEN, when they decide to keep more cows, are faced with the problem of how to house them. Knowing that decisions are tailored to meet conditions on the farm, I decided to talk with several dairymen and pass along to you what I learned.

For example, Ralph Space and his son Ronnie, on their farm near McLean, Tompkins County, New York, added 40 feet to their stanchion stable after they installed a milking parlor in 1959. This increased the capacity from 42 milkers to 60, making a two-man business.

Experience has shown that a bulk tank gives little saving of labor unless there is also a milking parlor or pipeline. "We found that the cost of a parlor was not far from the cost of a pipeline," Ronnie commented. "And with a pipeline, we would still have to stoop to milk. Before we decided what to do we visited many farms, and finally reached a decision. We find that the combination of cows in stanchions and a milking parlor works very well."

"In the winter," Ralph added, "one man does the milking while the other does the barn chores. We do this work in less time than it once took to milk 40 cows. In the summer, the cows are never in the barn, so one man does the milking, releasing the other man for field work."

The two big advantages of a stanchion barn, according to Ralph and Ronnie, are the ease of recognizing cows in heat and the fact that manure is hauled to the fields regularly.

"When cows are in a pen stable," explained Ronnie, "it's easy to miss a heat period."

"And when it's necessary to clean a pen stable in the spring and get the manure on the land before plowing, we think it slows up field work and gets a man behind," he added.

Different Opinion

Donald Hanks of Salem, Washington County, New York, has a different point of view.

"Cleaning the pen in the spring doesn't seem to be a problem," he said. But perhaps the difference is that he has two full-time hired men plus part-time help from three teenage sons.

Donald solved his problem of adding barn space in a different way. Six years ago he installed a bulk tank. At that time he milked about 50 cows, but a year and a half ago increased the herd to average 73, and may add

around 10 more. By the way, the 52 cows in the Hanks herd in 1959-60 posted a DHIC average of 17,386 pounds of milk per cow!

The Hanks farm also has around 6,000 laying hens, and on occasion old hens were moved from the laying house to a pole-type house to make room for pullets. This pole-type house was converted to a pen stable for the additional cows, which, of course, made it necessary to sell some of the old hens when pullets were ready to lay. "This combination of a stanchion barn and a pen stable works well for us," Don reports. "We usually keep cows in stanchions for some time after freshening."

A study of farm efficiency at Cornell University shows that a milking parlor located at one side of a stanchion barn works best. The problem is to keep cows moving in a circle from barn to parlor and back to their stanchions. Don handles this situation by turning about 25 cows loose in the holding area, and the rest are kept in their stanchions until most of the 25 are milked. This avoids cross traffic and confusion.

"We believe heat periods are observed better when cows are in stanchions," said Don. "but actually both systems have advantages. Our decision was made on the basis of cost. We had the pole-type building available and used it."

Similar Setup

I found another combination of stanchions and pen stable on Erwin Kelley's farm at Camden, in Oneida County, New York. Some years ago cows were kept on two farms, and it took a man and a boy to do the milking in each barn. Now, in a pinch, one man can milk the herd of 65 to 70 cows, 35 of which are in stanchions and the remainder in a pole-type barn built in 1959.

This was the program until last spring, when an unusual situation arose. Erwin found himself slated for a major operation and a spell in the hospital. "There seemed no alternative to selling the herd," he said, "so the folks at Earlville managed a disposal of 130 head of Holsteins. But on August 8, I was sufficiently recovered to go to Earlville and buy 14 cows. Now we are milking 23, will get to 60 as soon as possible, and perhaps, eventually, to 100."

"We milk the cows from the pen stable

(Continued on Page 16)

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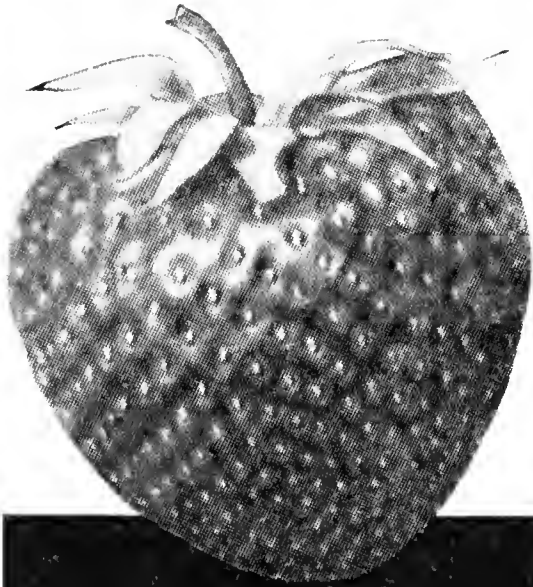


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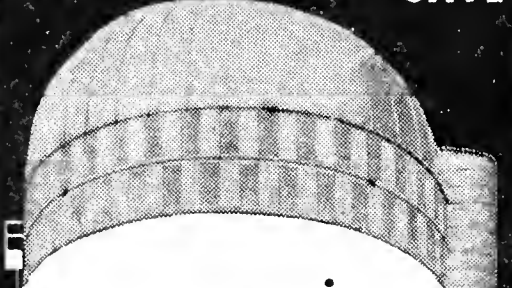


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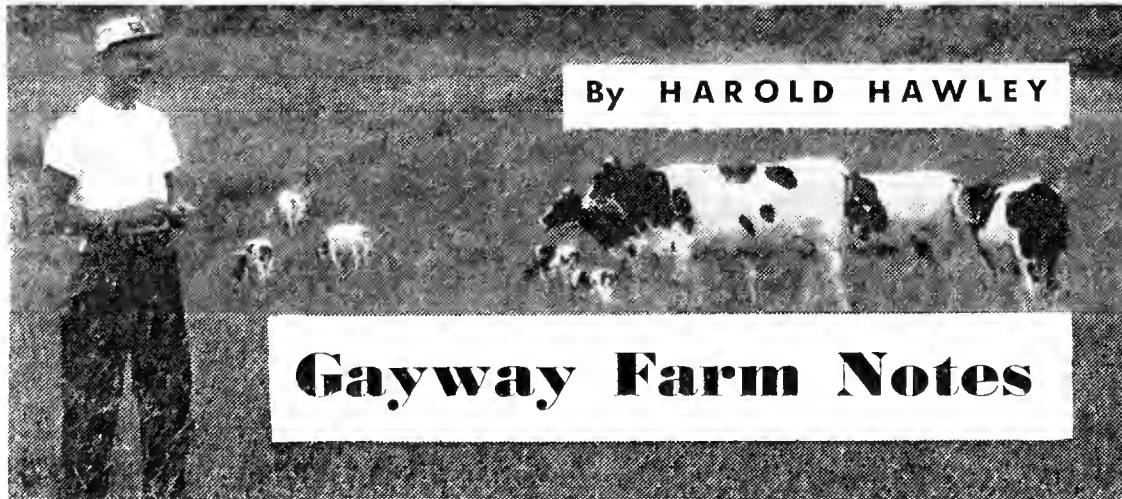
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Gayway Farm Notes

Specialize or Generalize?

FOR YEARS there has been an accelerating trend toward specialization in agriculture. One by one we have dropped enterprises and enlarged the remaining ones. Just think back 15 years ago on your own or your neighbor's farms. There no doubt was a farm flock of poultry, pigs for home use, possibly fruit trees, a garden and berry patch, and, depending on where the farm was located, additional crop and livestock enterprises.

In an attempt to maximize returns, we have concentrated on the most profitable enterprises or combinations of enterprises. The need to keep equipment investment within reason has encouraged this change. For many of us this has led to more cows—dairying being one of the most attractive alternatives. Generally speaking, it appears that specialization has been a necessary and a wise decision.

Other Side

Some highly respected friends of ours have stoutly maintained that putting all the eggs in one basket was to invite economic disaster. There is little doubt of the increase in vulnerability in the event of a bad year—be it due to low prices, disease, bad weather, or whatever. The man with several enterprises at least can produce more of his food, and these farm privileges could mean a lot in a tight situation. Few of us have many of these any more—no eggs, poultry, pork, fruit, etc.

Even in a depression the price of one farm product declines less than another. Of course, this is no help unless you happen to be producing the right thing. In a year like 1962, with a weather problem in many areas and a price squeeze for many dairy farmers, the fact that a man was diversified was not necessarily an advantage. Certainly the man selling breeding stock or springer heifers this fall and winter found them bringing low prices. However, a man with some cabbage to sell could easily forget some past years of poor cabbage prices and be thankful he had a second source of income.

Grow Cash Crops

In our area it's pretty typical for a dairyman to also grow cash crops. This may be wheat, beans, corn, extra hay, or even seed oats, barley, etc. Under a free market situation, fluctuations in production were pretty well reflected in price changes, and total income held reasonably steady, so the dairymen with such sideline income had a good hedge.

There is some indication that this is becoming less true. Government support prices lead to government purchases in some years. These holdings and the dumping of them—or

even the threat of dumping them—discourages price rises in years of short crops. So, with price not moving freely in an inverse direction to the size of the crop, total income tends to fluctuate directly with the size of crop. Even so, these extra sources of income have been a real help in lean years.

The real question remains—should one try to be both a dairyman and a cash crop grower, or specialize in one or the other? Naturally, there is no one answer; every farm constitutes a different situation. I note with interest the extreme of specialization in California, where a man may keep several hundred cows on a few acres, purchasing his replacements as well as his hay and grain. With dairying his only business, he does it well; much better than some of us who may be trying to do too many things.

If we are guided by Cornell cost account figures, most of us would have to conclude that it would pay better to let someone else raise our heifers and our grain. Bingo—this would lead us right to milking more cows, with resultant additional milk supply headaches! However, it's pretty hard to dodge the conclusion that this may be the direction we must take sooner or later.

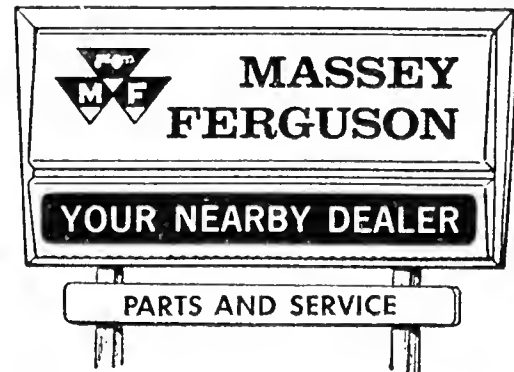
GOOFED AGAIN

We have some fields on which we wanted to re-run some soil tests. Bruce wanted to get some samples for lab work at Cornell, so it seemed this was the logical way to get the job done. You may remember how fast vacations go and how little thought is given to school problems. So now vacation has come and gone, the soil is frozen hard as a rock and covered with a lot of snow, and no samples taken.

We are fertilizing pretty heavily on all crops and it is getting increasingly important that we know what is needed. I suspect that back when we put 250 pounds of 5-10-10 per acre on a crop, it was hard to go wrong. Every pound of it (and more) was needed. But when one begins to load an acre with 400 to 500 pounds of 10-20-20 plus additional nitrogen, it begins to be more essential to have a look at the needs.

Every now and again we see some evidence of shortage (presumably of potash) in our hay. These modern hay yields sure take a lot more out of the soil. I know we have done the poorest job of properly fertilizing alfalfa of any crop we grow. This is a place we must do better.

For a couple of years, we were very enthused about straight nitrogen on permanent grass pastures. The response was terrific. More and more, however, it seems we must balance up the inputs of fertilizer to get the same response.



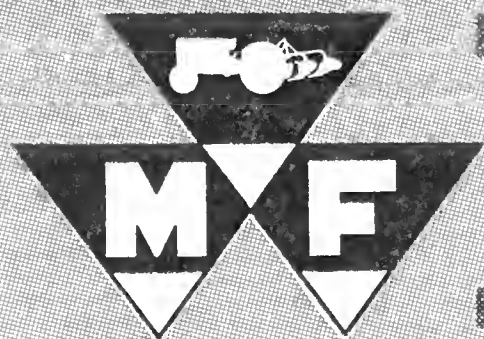
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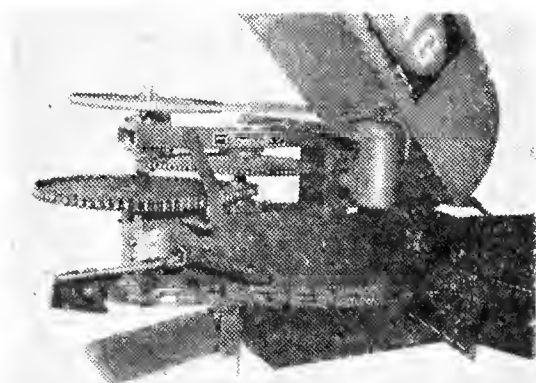


10-year-old proof of extra **BERG** barn cleaner life

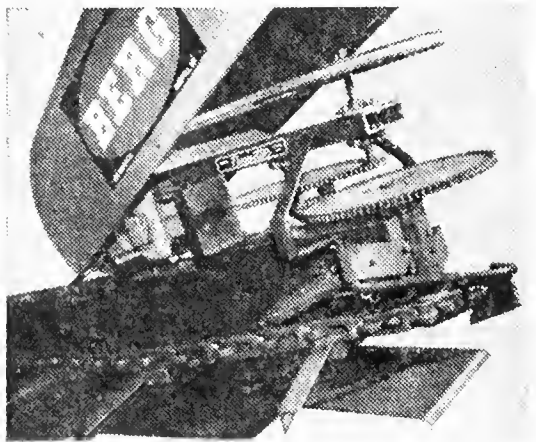


Selmer Samdahl, Menomonie, Wis., holds gutter chain link from his 10-year-old Berg barn cleaner. This is same link shown full size.

Ten year's service has hardly marked this Berg gutter chain link. Now, improved design, a strengthened hook, and more metal below the "eye," makes today's Berg chain even more durable. These big links, which weigh over two lbs. each, are formed in one piece from corrosion-resistant forging steel. And flutes are welded to gutter chain links for keeps. Rugged drives and seamless steel elevator are other important Berg barn cleaner advantages.



Berg Choremaster barn cleaner is an extra-heavy-duty machine that's built to move a long gutter chain in the largest dairy barns.

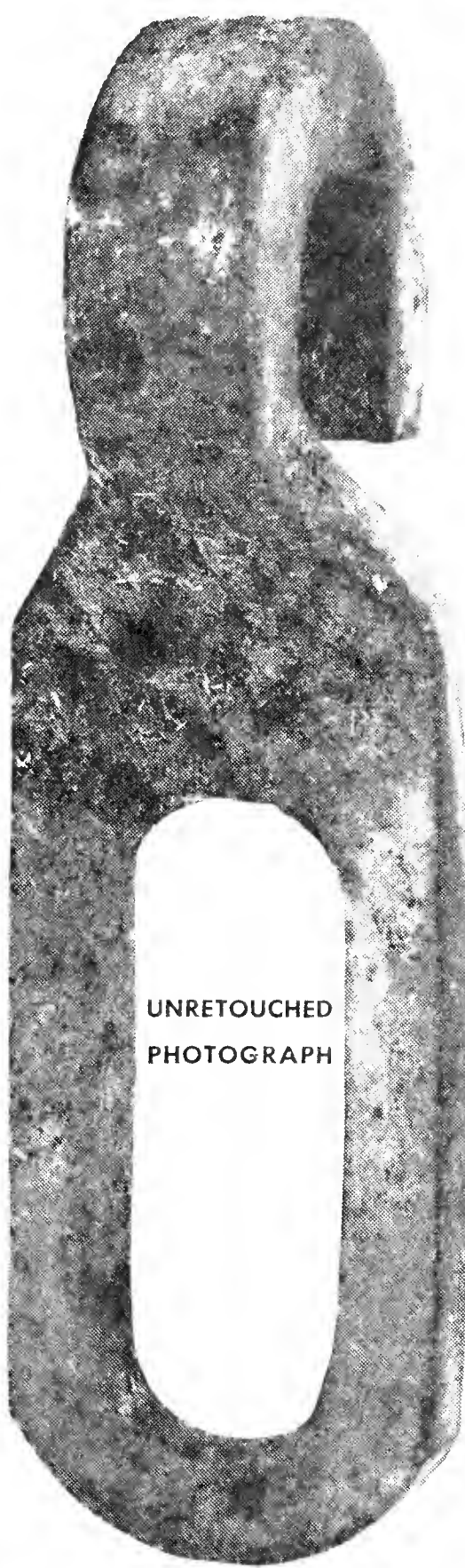


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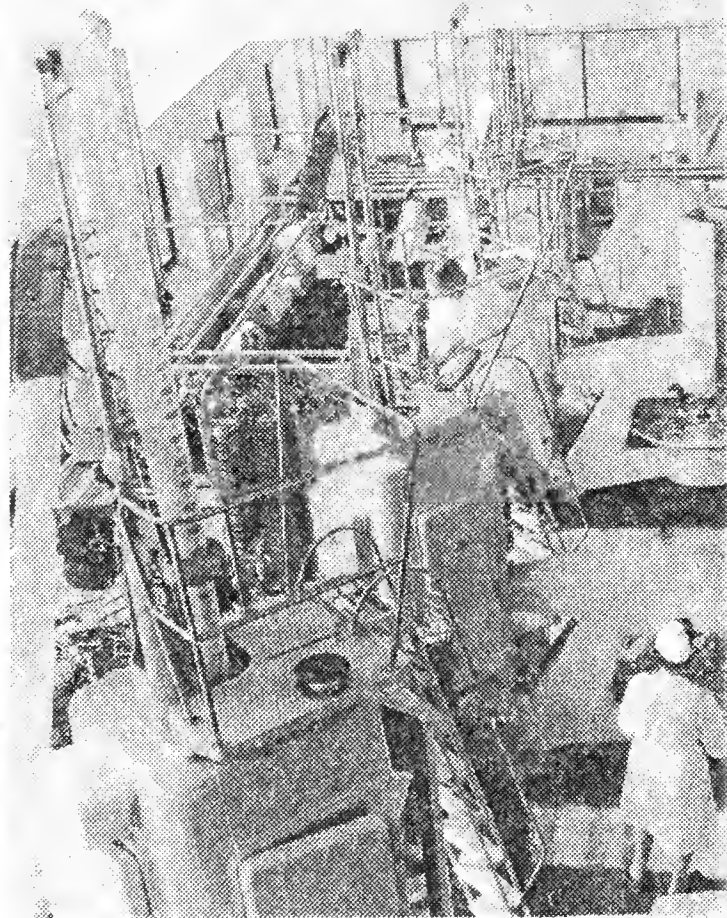
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This milk plant at Halsinborg, Sweden, has first class equipment.

Dairy Products Across The Seas



THE UNITED STATES doesn't have any corner on the latest in handling milk and milk products. Bob Holland, head of Cornell University's Department of Dairy and Food Science, visited a number of European countries recently and reports that Sweden, Denmark, Holland and Belgium have some of the finest milk plants in the world.

Bob also reports that per capita consumption of milk and milk products is generally higher across the waters than in the United States, but fluid milk consumption is very low there by our standards. He says, "I've never seen a European drink a glass of milk in a restaurant. Maybe part of the reason is that over there they generally serve milk at about room temperature, rather than cold. In London, I finally got a cold glass of milk—but the waitress had to go to the ice cream department to get it—it was quite a production to arrange."

However, Bob reports that nearly every bus in London had a big sign on its sides—"Drink a Pint of Milk a Day." When Bob went to dinner at the home of the head of Great Britain's National Institute for Research in Dairying, though, only beer and wine were served—no milk. But five kinds of cheese and lots of butter were served.

The banquets sponsored by the International Dairy Congress at Copenhagen, did not include milk on the menu, either. Milk products account for the large per capita consumption in Europe.

How's That Again?

In Belgium he saw a milk plant using a process known as bactofugation—the removal of bacteria by centrifugal force. He reports that the resulting milk had a delicious flavor and excellent keeping quality. The process is reported to remove 98½ percent of all bacteria and spores.

In Iceland he sampled an item called skyr, a little like cottage cheese, but with a peculiar sweet-sour taste that was very appealing. It's used a bit like junket pudding would be used in this country. Belgian milk dealers were selling a carbonated product consisting of whey, fruit juices and sugar. The sale of this product seemed to be very sensitive to advertising.

Promotion was a hot topic in the milk industry, particularly in England where all milk promotion is

under the auspices of the Milk Marketing Board — a governmental agency that controls the milk industry. Most European countries have some kind of support program for milk and milk products.

Asked about the Common Market, he commented that it might have a limited effect on dairymen in this country because Denmark and Holland could put cheese and butter into the United States cheaper than the domestic product if it were not for protective tariffs. Their butter quality is first class because it is not stored for long periods, as is much of ours (because of the price support program) before it reaches the market.

Also, New Zealand and Canada may look to the United States as a dairy market more than they have in the past if England joins the Common Market and does less business with its Dominions.—G.L.C.

Farm Vacations

VACATIONS on a farm provide a two-way experience. City folks who perhaps spent their childhood on a farm enjoy a return to the country—without the "chores" that were once involved; those who have not before experienced country living and hospitality revel in the freedom from tension, the wealth of outlet for youngsters, and the opportunity thoroughly to relax.

The farm hosts enjoy the opportunity to meet new folks, and to exchange differing viewpoints with them. Visitors must not expect breakfast in bed, but they will enjoy the hearty family-style meals, and when their ways part again it will be as friends.

Newly published by **Farm Vacations, 36 East 57th Street, New York**, is a vacation directory of farms, ranches, inns, lodges, and country homes, etc. For 50 cents a copy will be forwarded to you. And this needn't just refer to city folks coming to the country. Wouldn't you perhaps like to visit your farmer friends in other parts of the country? The listings stretch from Nova Scotia to Virginia, from Cape Ann in Massachusetts to Friday Harbor, two hours by ferry from Seattle. They represent some 32,500 acres on which vacationers are welcome, not as workers but as guests, at rates averaging \$10 per week for adults, and \$25 for children, including meals.

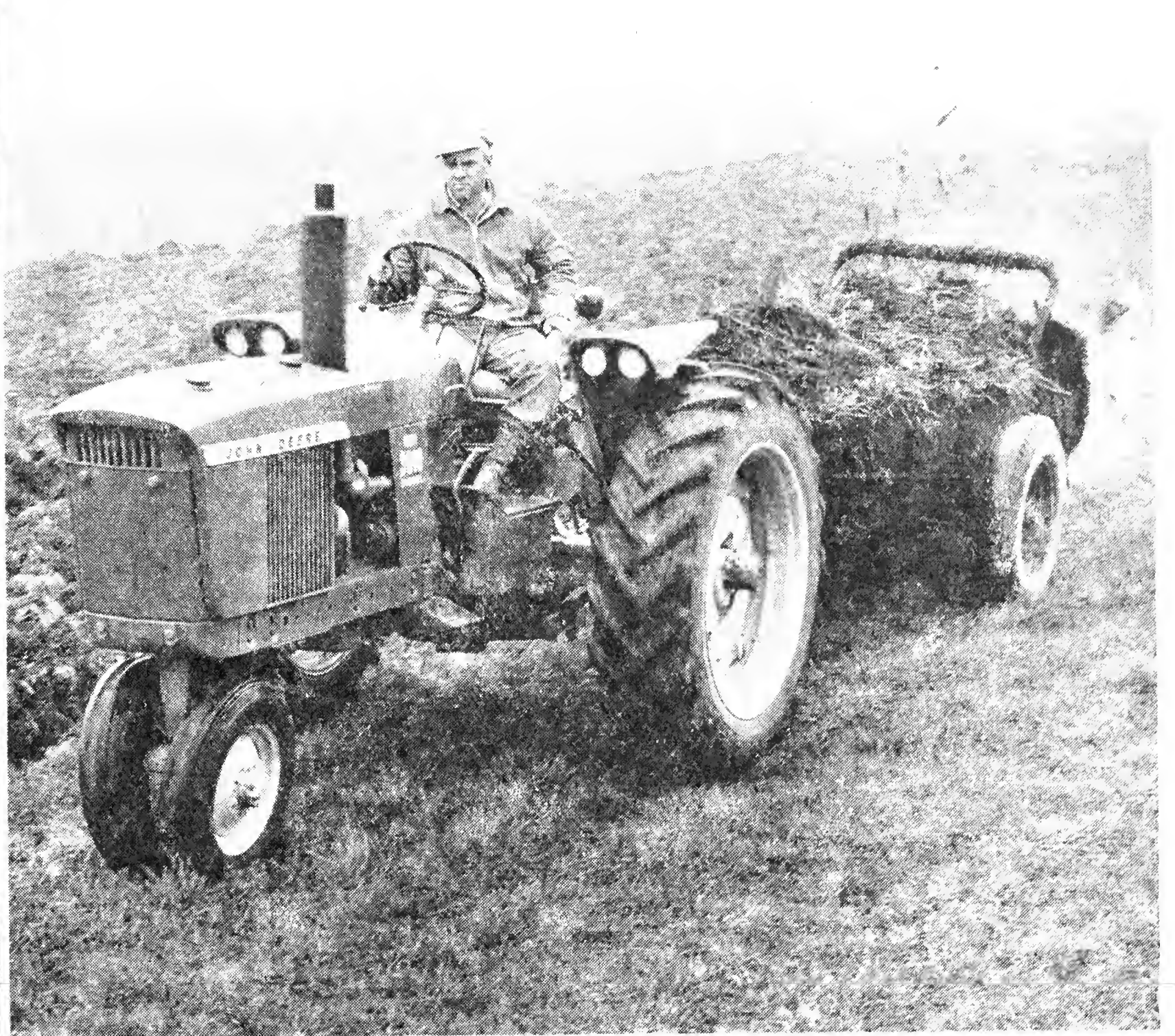
A Pennsylvania dairyman reports: Morris and Dennis Meyer, father and son respectively, operate two adjoining dairy farms, 400 acres in all, near Trout Run. When they decided to double their production, Dennis Meyer started looking for a tractor that could get over the ground faster and still keep operating costs low. His "findings" could be of profit to you . . .

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"Another thing, we've really been impressed with the '3010's' economy of operation, considering all the horsepower it has. I've plowed 21 acres of oat stubble in 12 hours and used only 25 or 26 gallons of Diesel fuel."

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How To Louse Up Tree Planting

By E. L. STONE and F. E. WINCH*

IN RECENT years some landowners have met with an unusual degree of success in planting and tending forest plantations. Possibly they are exceptions, because it is really easy to make mistakes that make a mess of things. Nevertheless, these shining examples seem to have convinced many landowners that successful plantations are normal, and that failures are tough to come by.

But it's really not difficult at all to get poor results; here are ten easy ways to fail:

1. Stay away from the area to be reforested until the day you plant, unless you have urgent reasons — like rabbit hunting—for going there. In case you do roam over the area, avoid any accidental observation of soil, drainage, plant cover or lay of the land. "Trees will grow anywhere and there's no need to complicate a simple job."

2. When ready to order trees try this species-roulette method: Place the order blank or nursery catalog on the table before you, close your eyes, and jab a pencil at it—order the kind of tree nearest the point. For variations of this game, pin the order blank to a dart board. "One species is about as good as another."

3. Don't worry about planning row direction or access roads and lanes into the plantation. "There's no problem in getting around now, and I can cross that bridge when I come to it."

4. When the trees arrive, stack the bundles out of the way and forget about them until you're ready to plant. "Heeling in or frequent watering is not very convenient."

5. Early spring weather is likely to be cold and wet, so postpone planting to late May or June when you can be reasonably sure of comfortable weather. "A week or two one way or another shouldn't make much difference to a tree."

6. Planting is a long, hard job, and you have to get on with it fast. If hand planting, grab a handful and plant them; if machine planting, jam the trees in the furrow as you can. Don't be fussy about how the roots are spread or how deep; get them in! "The people who think up theories about planting depth and misshapen

root systems aren't out there breaking their backs, are they?"

7. Once planting is finished, forget about the field. The hawks will take care of the mice, and you can take care of the rabbits. "It will be a long time before anything happens, anyway, and a watched pot never boils."

8. Fences, sprays, brush control and so forth take time and money —

so don't bother with them. "Mother Nature grows lots of good trees without such things."

9. Why thin out some trees after you've gone to the trouble of planting them thick? "Let them all grow until they get big enough to use."

10. If all these suggestions are ineffective, or too time-consuming, try burning off the grass in the next field. This seldom fails to clobber the most vigorous and stubborn cases of plantation success.

Of course, if it's success you're after, drop a card to your county

agent and ask about publications on forestry available in your state. In New York, write to Mailing Room, Cornell University, Ithaca, New York, and ask for Bulletins 956 (Planting Forest Trees on New York Lands); 867 (Care of Plantations on Farm Lands); and 1075 (Judging Land for Forest Planting in New York). Related publications are available in the Empire State from the College of Forestry, State University of New York, Syracuse, New York, and the State Conservation Department, Albany.

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Dates To Remember

Feb. 5-7 — Vermont Farm Show, Barre Auditorium.

February 15 — Deadline for farmers filing Federal and State Income Tax returns.

February 28—Deadline for a farmer to file Federal Information Forms 1096 and 1099 for employees paid \$600 or more during 1962.

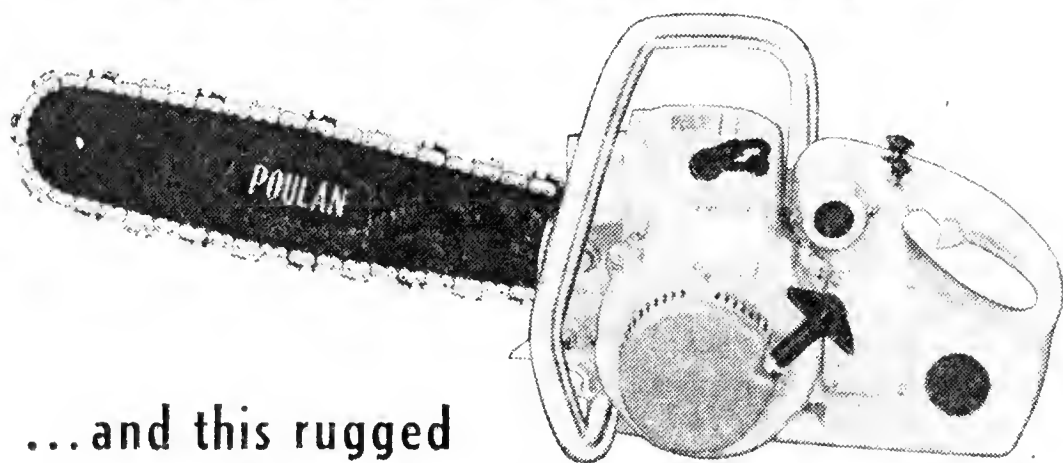
March 16 — Connecticut Foundation Dairy Calf Sale for 4-H and FFA members, Ratcliffe Hicks Arena, University of Connecticut.

March 21 — Agricultural Leaders' Forum (formerly Agricultural Progress Days), Cornell University, Ithaca, N. Y.

March 29-30—Little International Horse and Livestock Show, Ratcliffe Hicks Arena, University of Connecticut.

* Cornell University, Ithaca, N. Y.

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Short of Hay and Silage?

By STAN GAUNT*

MANY DAIRYMEN in the Northeast went into the winter feeding season short of hay due to last summer's drought. The question often arises, "How heavy can I feed corn silage?" We have several dairymen feeding 70-80 pounds of corn silage per cow per day (along with a little hay) with good results. In fact, we have a couple dairymen who fed nothing but corn silage for a short time and the cows appeared to do all right. However, it would be desirable to feed some good hay (5 pounds or so per cow each day) not only to maintain variety in the ration, but to help keep the cows' appetites keen and reduce the danger of going off feed.

Adjust Protein

Dairymen who feed large amounts of corn silage with average grass hay will need to step up the protein in their grain mixture to 20 percent. Since a 20 percent protein ration usually costs little more than a 16 percent, this is the cheapest way to increase available protein. With average amounts of grain being fed, the following protein ration mixtures should apply sufficient protein for the indicated roughage combinations. If the grass hay was really cut early, then the protein in the concentrates could be dropped to the next lower bracket.

Apparently, the moisture content of corn silage this year is higher than usual, according to a few checks that have been made in our area. The cool summer and dry weather resulted in later maturing of corn plants. In any case, it's a good idea to check the moisture content of your corn silage, as there is considerable variation and you need to know in order to adjust your feeding program. During the last two years in our area, feeding guides have been listing the dry matter in corn silage higher than it really is. According to analysis of 159 samples, our corn silage had about 4 percent more water on the average than that listed in Morrison's "Feeds and Feeding" for the various stages of maturity.

* Extension Dairyman, University of Massachusetts

Moisture content is important because a 70 percent moisture silage will have 30 percent dry matter or 50 percent more dry matter than corn silage with 80 percent water or 20 percent dry matter. So practically to give your cows about the same total feed value, you will need to feed at least 45 pounds of 80 percent moisture corn silage to equal 30 pounds at 70 percent moisture.

What can you do if you are short of both hay and silage? First, determine how much silage and good hay you have on hand. If there is not enough hay (or its equivalent in silage) to provide 6 to 8 pounds per cow per day for the entire season, then you had better buy enough good hay to do so. Beyond this find out what feed, hay, or by-product feeds supply the nutrients needed at the lowest cost. In our area, feeds like citrus pulp, beet pulp, hominy, molasses and soybean flakes are usually the best buy. Perhaps they are not in your area.

Check this yourself. Determine the value of all these products on the basis of "what they cost per 100 therms of net energy" and not "what they sell for per 100 pounds." Your county agent or DHIA tester can help you.

In Massachusetts, the great differences in the cost of nutrients that exist in hay and the by-product feeds are illustrated in the following table. As you can see, molasses is the cheapest source of net energy, with hominy and citrus pulp next. Purchased hay—either fair or excellent—is the most expensive. Prices will vary—use your own for your situation. These are only examples.

Fair hay would have to sell at \$30 a ton to supply energy at the same price as the citrus pulp, if prices are as shown.

Remember the cow is a versatile creature. She will do well on a ration largely of grain and by-product feeds as long as she receives about 6 to 8 pounds of hay—or its equivalent in silage—per day. Beyond that, consider the quality and quantity of hay and silage on hand, take into account the price and quality of local hay and hay extenders and work out your feeding program on the basis

(Continued on Opposite Page)

ADJUST GRAIN RATION PROTEIN

Roughage	Recommended Protein In Grain Ration
Grass hay and corn silage	20%
Grass hay and grass silage	16%
Mixed hay and/or corn silage	16%
Mixed hay and/or grass silage	14%
Legume hay and/or corn silage	14%
Legume hay and/or grass silage	12%

COST ON NET ENERGY BASIS

Feed	Price per cwt.	Net energy therms	Cost per 100 therms net energy
Molasses	2.26	71.3	3.17
Hominy	3.20	81.5	3.79
Citrus Pulp	2.90	75.0	3.87
Beet Pulp	3.10	76.1	4.08
Fair Hay	1.75	38.0	1.61
Excellent Hay	2.25	15.0	5.00

When You Move, send us both your old and new address so you won't miss an issue.

American Agriculturist, 10 No. Cherry St., Poughkeepsie, N. Y.

The Cow That Was Different

By EDWARD C. O'BRIEN

ALL OF THE cows in the pasture were facing in the same direction except one. She was standing far off from the rest of the group. She wasn't eating—just standing. Two cows in the group were talking about the poor-looking cow. "What do you think is the matter with her?" said the first. "She's a queer one."

"She doesn't eat very much," said the second, whose name was Elsie and who was looked upon as the leader of the group and resented the one cow that wouldn't follow. Lowering her voice, she continued: "I heard that she's been talking to some of the others and telling them not to eat so much—she says it's the only way."

"The only way what?" said Mabel, leaning closer to Elsie.

"She says we're producing too much milk, or something. She says we've got to cut down—it'll solve everything—the surplus problem."

"Well, I never," said Mabel. "What's surplus?" she said, after a pause.

"Who knows!" answered Elsie. "Actually I think it has something to do with Russia. Someone said they don't have it over there—and you know what I think?"

"What?" said Mabel, barely making herself heard.

"She's a Communist — that's what!"

"Well, I . . ." began Mabel, but Elsie continued in a hushed whisper: "She wants to be the leader—she wants my job. She'd have all of us standing around all day—hardly eating—getting thinner and thinner and hardly giving any milk."

"A Communist! Can you imagine, right here in our group," said Mabel. She hadn't heard Elsie's last whisper; it had been too low. "Are you

sure?" she asked. "What are you going to do about it?"

"Five thousand pounds — that's what she gave last year—and it was low in butterfat," continued Elsie. "She doesn't believe in butterfat."

"She is a Communist," said Mabel. "Can't we report her — or something?"

"Who to?" inquired Elsie. "Why, she stands in with the bull! I heard he even said he thinks she's not so crazy. Besides, he told me once I'm too fat." Elsie looked pleadingly at Mabel. "What do you think of that?"

"Maybe he's one, too," said Mabel, at a loss for anything else to say.

"I know he's worried about things," said Elsie. "He said something about over in England they won't need cows any more. All they'll need is grass, or something to make milk."

"He is one," said Mabel. "He must be."

"I'm going to sit down," said Elsie. "I can think better sitting down. If she's got a plan, I'll think one up, too."

After a while Mabel broke in on Elsie's thoughts.

"Have you thought up another plan?" she asked.

Elsie nodded.

"I was just thinking," said Elsie. "You don't suppose we are producing too much? Maybe we should sit more and not eat all the time."

"Well, I'll be . . ." said Mabel.

WELL COVERING

PROBABLY not many folks have thought of the old dry wells that dot our farmsteads as a hazard when they are covered, but just a few weeks ago when AMERICAN AGRICULTURIST's General Manager, Jim Hall, was riding his tractor-lawn-mower over his lawn (and over a dry well with 4" planking) one rear wheel dropped through. He was fortunate in that he got clear.

In talking with members of the Agricultural Engineering Department at Cornell the suggestion was made that in view of the weight of present-day machinery the recommendation would be made that dry wells should be capped with concrete instead of the usual thick wooden cover. It's worth thinking about.

SHORT OF HAY AND SILAGE?

(Continued from Opposite Page)

of net energy, not price per ton.

Another way to consider the relative value of substitute feeds is to figure their relative feed value in terms of good hay. This will permit using the grain feeding tables as guides. Consider on the average the following amounts equalling 10 pounds of good hay in feeding value (energy).

Pounds of Various Feeds Equal to 10 lbs. of Good Hay*	
Hominy	5.0
Concentrate Ration	5.6
Citrus Pulp	5.6
Beet Pulp	5.6
Potato Pulp	5.6
Soybean Flakes	6.1
Stale Bread	7.0
Average Hay	11-12
Poor Hay	14
Oat Mill Feed	18
Potatoes	30
Apple Pomace	30
Wet Brewers Grains (84% water)	38
Corn Silage av. Grass Silage (slightly wilted or preservative added)	30
Grass Silage (80% water)	40
Grass Silage Wilted (65% water)	21

* Net energy basis



F. A. Cross, right, and Art Lewis, inspect silage harvested on the Cross farms at Willsboro, N.Y.

A successful formula for: MORE THAN 25 TONS OF CORN SILAGE/ACRE

Friend A. Cross, owner of two farms in Willsboro, N.Y., used this simple formula to produce more than 25 tons of high-quality corn silage per acre from 20 acres of rich Upstate New York soil in Essex County.

How did the resourceful farmer do it?

First, Mr. Cross is a good farmer by any standards. He was born and reared on the farmland he now owns. He works 100 tillable acres and milks some 43 Holsteins. This Good Management Planning (GMP) of the farm is the first part of a successful silage formula.

As a good farmer, Mr. Cross used a soil test (ST) and followed the recommendations. He planted 14 acres of Cornell M-4 and 6 acres of Cornell M-3 seed corn (SC) from GLF. Plant population was in excess of 24,000 plants per acre. He fertilized (F) with 500 pounds per acre of GLF super phosphate, 15 tons per acre of manure, and 500 pounds per acre of GLF 16-8-8. The field was limed (L) with two tons per acre. Atrazine (A) was applied at the rate of 2½ pounds per acre, in line with GLF recommendations.

Results? More than 25 tons of high-quality corn silage per acre.

GLF is proud to play a part in the success stories of farmers like Mr. Cross. His farm is serviced by Art Lewis, GLF Agent-Buyer and owner of Lewis Farm Supply at Wadhams, N.Y.

If you would like to join Mr. Cross as a top corn silage producer, contact your nearby GLF Service Agency for more information about GLF's complete crop needs package—soil test, the right seed, pesticides, fertilizer, lime, and on-the-farm assistance to help you grow more TDN per acre.

Interestingly, a test plot in the Cross fields that was not sprayed with Atrazine yielded 25% less than the average weight of the harvested crop that was sprayed.

Find out how Atrazine can help you. As proved here, it is one of the most important ingredients in the silage formula for yields of low-cost corn silage TDN. See your GLF today. Cooperative GLF Exchange, Inc., Ithaca, New York.



GLF COMPLETE CROP SERVICES

Northeastern Winners at the International Exposition

EXHIBITORS from the Northeast at the recent International Livestock Exposition in Chicago with animals that placed top or near the top in various classes include the following:

For **Holsteins**, Tara Hills Farms, Millbrook, New York; June Collins, Malone, New York; Fred Baer, Fort Plain, New York; Pondview Farm and Hickoryvale Farm, Frederick, Maryland and Middletown, Maryland; Joppa Hill Farm, Bedford, New Hampshire; Harvey E. Clem, Utica,

Maryland; Maureen MacKenzie, Rockville, Maryland; Ray Smith, Frederick, Maryland.

New York State herd placed second in the Holstein breed, and Maryland State herd fourth.

In the **Jerseys**, high-placing animals were owned by Henry Uihlein, Lake Placid Club, New York; Vaucluse Farm, Newport, Rhode Island; Pioneer Farm, Old Lyme, Connecticut; Merle E. or Louise G. Miller, Carlisle, Pennsylvania.

Premier Exhibitors' Award went

to Henry Uihlein, and Premier Breeder's Award to Pioneer Farm.

Pennsylvania State University and Mill Creek Valley Farm, University Park, Pennsylvania, and Four Winds Farm, West Boylston, Massachusetts, both had several wins in the **Polled Hereford** classes, and Penn State also took wins in the **Breeding Shorthorns**, as did Worden Brothers, Windsor, New York. In the **Polled Shorthorns** the following placed high: George H. C. Arrowsmith, Upperco, Maryland; W. K. Scheidemantle, Harmony, Pennsylvania; F. W. Smalstig, Timberlee Valley Stock Farm, Pittsburgh, Pennsylvania.

With the **Aberdeen Angus**, wins were scored by Old Home Manor, Homer City, Pennsylvania; Ankony

Farm, Rhinebeck, New York; Mole's Hill Farm, Sharon, Connecticut; Heckmeres Highlands, Valencia, Pennsylvania; Mahrapo Farms, Mahwah, New Jersey; Pennsylvania State University; Rally Farms, Millbrook, New York, and Meadow Lane Farm, North Salem, New York.

In the Intercollegiate beef grading contest Cornell University team took second place, and Gary Hyman of Cornell won high individual rating.

MORE COWS NEED MORE ROOM

(Continued from Page 6)

first," explained Erwin. "The cows in stanchions are fresh cows kept there until they are bred. Cost was the big factor in our decision to build a pen stable."

I hear some reports of a swing away from pen stabling and to stanchion barns. There is no question but that a milking parlor and a stanchion barn can be arranged for efficient management. Where a farm has a barn with sufficient hay storage, capacity can be expanded by building a one-story stable, often with pole-type construction, at about the same cost as building a pen stable. But where this doesn't seem feasible, a combination stanchion barn and pen stable seems to work well.

Changes in feeding practices will affect new construction. The "hole in the ground" pit silo seems to be on the way out. But a self-feeding bunker silo with permanent sides and bottom, preferably covered, has advantages, as does a tower silo with an unloader and automatic bunk feeder.

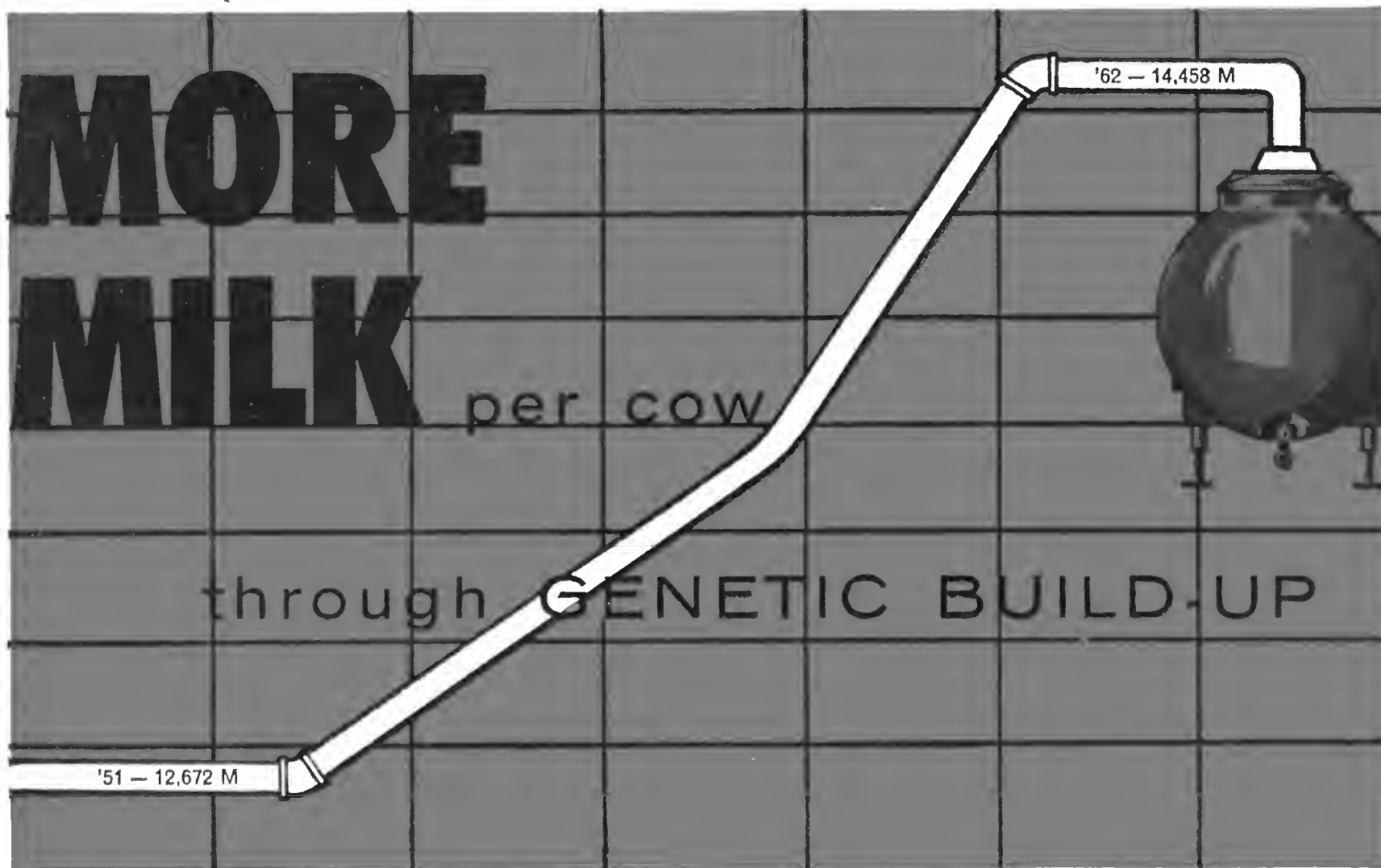
BUILDING IDEAS

The Department of Agricultural Engineering at Cornell University has many building plans that are available to every farmer and builder in the Northeast. Bulk milk house plans are a timely item, available showing four different types of construction. Three new plans for dairy setups, and cost of each, are: Plan No. 797, entitled Cow Stall Details (25c); Plan No. 807, Four-Row Two-Story Stall Barn (\$2.00); and Plan No. 761, called 75-Cow Loose Housing System (\$1.50).

For a complete list of all plans available, and the cost of each, write to Agricultural Engineering Extension, Riley-Robb Hall, Cornell University, Ithaca, New York. These plan lists, single copies of which are free, are: Bulletin No. 851-CU — List of Cornell Plans Available from the Extension Plan Service.

851-MW—List of Midwest Plans Available from the Extension Plan Service.

851-US — List of U.S.D.A. Plans Available from the Extension Plan Service.



Robert Phalen
Stanley, N. Y.

"The longer I use American Breeders Great Proved Sires in my herd the higher goes my milk production. (His actual increase is shown in the pipe line graph above . . . 1,886 lbs. more milk per cow since '51.) I've done no culling for low production for the last two years, in fact, not over three cows since 1952. One of the extra bonuses is consistently good heifers. They show improvement generation after generation."



Robert Phalen's build-up in milk production, 1,886 lbs. per cow, is represented in this pipe line graph.

You'll get more milk per cow, less culling per herd — with the genetic build-up provided by steady use of Great Proved Sires from American Breeders Service. Each generation of ABS Daughters inherits a higher concentration of milk-making ability.

You can set higher herd production goals . . . and reach those goals . . . with consistent use of ABS Great Proved Sires.

Want proof? Ask your neighbor who has adopted the ABS Breeding Program. He'll show you the record of continued production increases generation after generation. And, he'll show you the best reason why his culling rate is so low . . . sound, long-wearing, easy-milking cows that almost always outproduce their dams.

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The QUESTION BOX

When and how much nitrogen should be applied to a meadow this spring and what results can I expect?

Usual recommendation is 50 pounds of actual nitrogen per acre early in the spring. For example, with 150 pounds of ammonium nitrate on meadows with no legumes, average yields were increased from less than one ton per acre to about double the yield. On meadows with some legumes 75 pounds of ammonium nitrate per acre gave a good increase.

Recently my maple trees seem to look different, and the leaves drop off early. What can be causing it?

Maple trees throughout the Northeast have for some years exhibited symptoms of gradual decline. Shade and roadside trees seem most frequently affected. Leaves sometimes become dwarfed, scorched or prematurely colored, and early leaf fall is frequent. Reduction of shoot growth accompanies these symptoms. Die-back of twigs and branches is seen, particularly in the tops, and whole trees sometimes die. The cause of this is not definitely known. More than one agent could be involved. No fungus disease is consistently present, and the general nature of the trouble suggests the possibility that it is due to unfavorable environmental conditions such

as the cumulative effect of several dry periods. This would tend to increase the severity of winter injury to roots and produce permanent damage. Injured roots could then be attacked by disease organisms so that the root system would become incapable of taking up water and food materials, although supplies of these might be available. No satisfactory treatment of declining maples has been devised. In the case of young trees it may be worthwhile to fertilize and water during dry periods. — D. S. Welch, Cornell University

What's a good all-round spray combination for the home garden?

Vegetable specialist Phil Minges of Cornell says that he uses a "shot-gun" mixture for the garden, including vegetables and flowers like roses and gladiolus. He uses a mixture of DDT, malathion, and maneb—all available in small quantities at most farm and garden stores. Remember that trade names don't always include the name of the active ingredient, so you'll have to check the fine print to find out what's in it. For instance, maneb is sold under such trade names as Manzate, Dithane M-22, etc. Follow directions on the label for the amount to include per gallon of

spray. A few insects, like squash bugs, may need special treatment with some material like lindane, but the mixture given will handle most insects and diseases.

Could you give us information about using steam for radiant floor heat in a broiler setup. How long can we expect bituminized fiber pipes to last?

To my knowledge, steam is never used for radiant floor heat. Both electricity and hot water are. Both black iron pipe and copper tubing are used—copper given preference. To figure the amount of length of pipe, and therefore the spacing in the floor, you must first calculate the heat loss of the room or area to be heated. Most plumbers and heating contractors can fairly quickly do this after they know the amount of insulation in the walls, glass area, insulation in ceiling, roof or floor, etc. The local dealer from whom you purchase the pipe (or mail order firm) should be able to help you with details. I should add that radiant floor heat had quite a spurt during the early 50's, but there is relatively little of it now. For one reason, a warm floor is a little uncomfortable on the feet—a floor panel would have to be at 85 to 95 degrees F. to keep the room temperature to 70 degrees F. It is my understanding that the bituminized fiber pipes (both Orangeburg and Brown Company product) have excellent resistance to decay—last indefinitely. The principal reason for any failures has been mechanical—crushing from improper backfill, too close to surface with resulting frost heaving, damage from vehicles, etc. — Prof. E. W. Foss, Cornell University

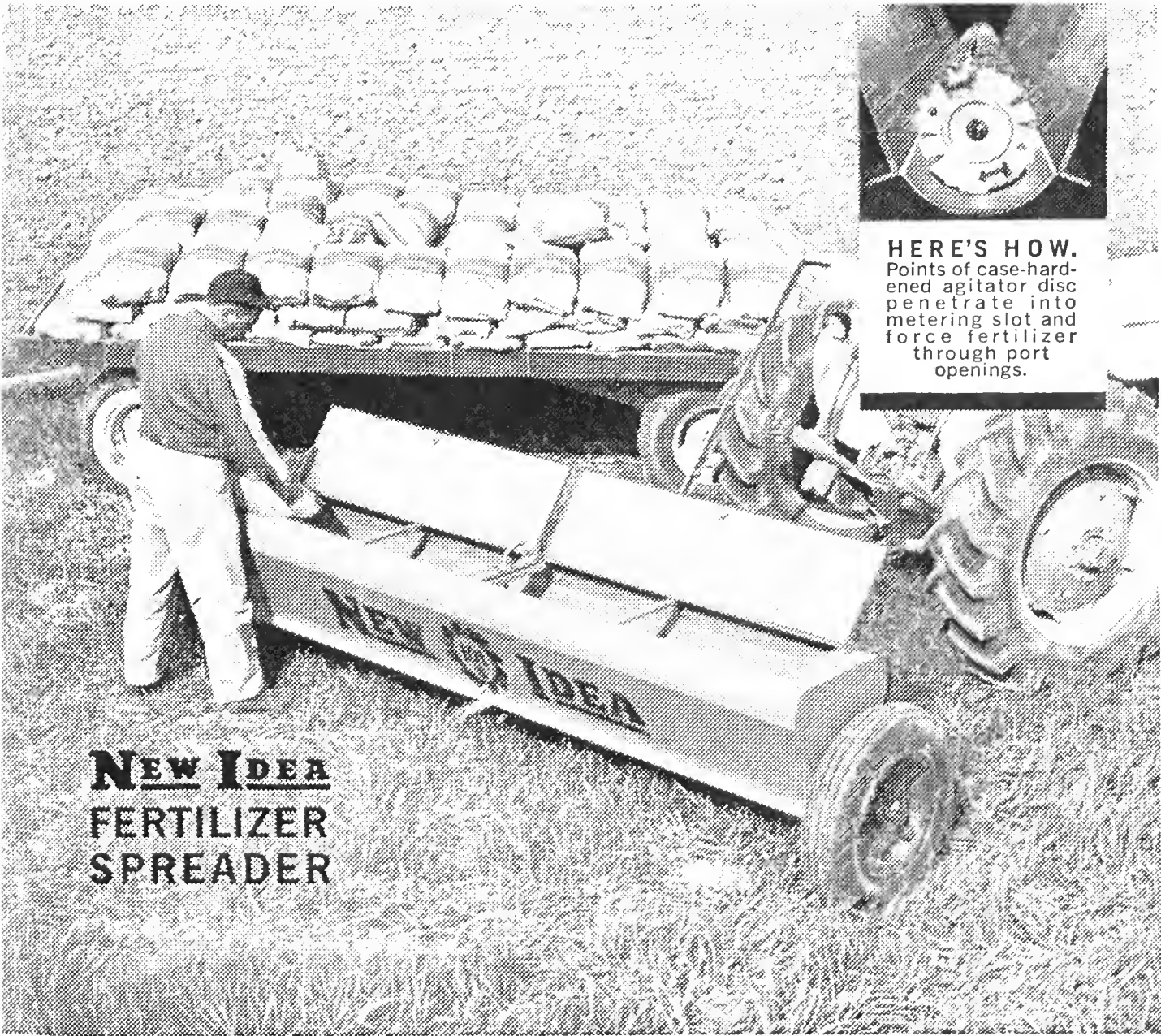
What could cause chickens to lose feathers around the tail?

This particular problem has been quite common over the past few years but we find it less of a problem where people are feeding a complete all-mash laying ration. This is tied to what we call a protein-energy ratio and when this gets out of balance one of the first characteristics is that the birds lose the feathers around the tail setting and sometimes all over the back area. If this energy-protein ratio gets too far out of balance it can upset production, but often if it is not severe the only reaction we get is the loss of tail feathers. I sincerely believe that if you feed your flock an all-mash ration and keep it before them at all times you will not have this particular problem. If you should want to supplement the feeding program when using an all-mash ration, secure some pellets of the same formulation and feed a few pounds in the afternoon or evening which will tend to stimulate consumption. This is often desirable in severe cold weather to get the birds to eat more. If you do feed an all-mash ration, by all means do not supplement this with grain to any extent because the grain being low in protein will tend to bring your total protein way below the requirement needed by the birds. —C. E. Ostrander, Cornell University

Why do we hear so little about culling non-laying hens? Average production of well bred hens is now so high that most poultrymen feel culling is unnecessary.

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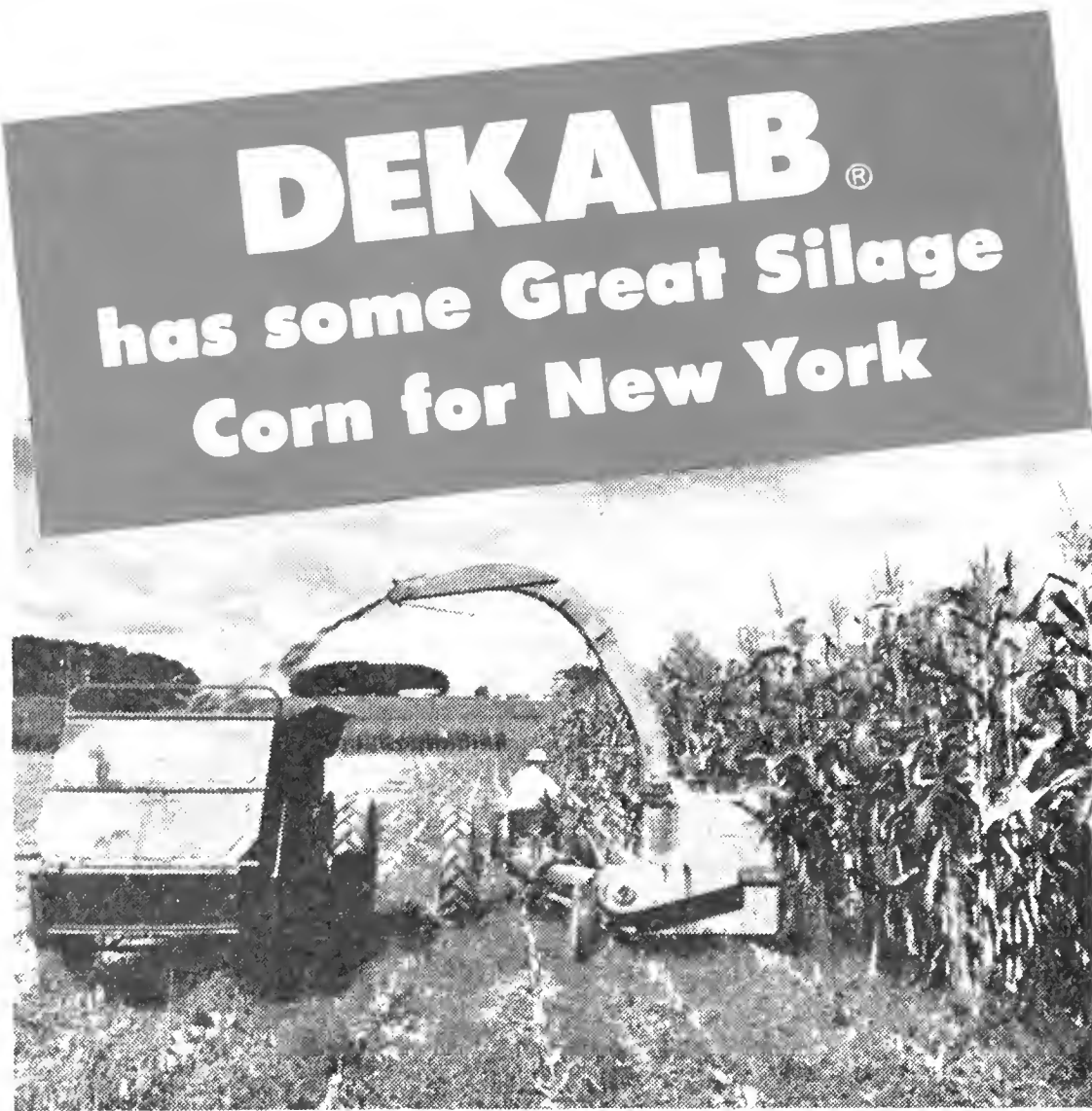
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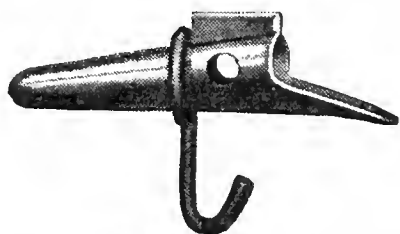
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Lightning Protection Pays

By TOM CLAGUE



THE OLD notion that "everybody talks about the weather but nobody does anything about it" has been partially false all along. Ben Franklin long ago did something about a very frightening aspect of weather—he invented the lightning rod. More than 200 years later, the lightning rod is still practically fool-proof. Properly installed, it has a record of practically 100 percent effectiveness in protecting buildings, trees, chimneys, etc., against so formidable and fantastic a force as lightning.

Should Be Protected

As a matter of fact, being without adequate lightning protection is pretty hard to justify. You wouldn't want a farmstead to be without insurance protection — the risk is too great. However, nobody ever made any money by collecting insurance after a fire. Even if all losses are covered, there's still the nuisance of the mess, and getting things going again.

Lightning causes far more farm fires than any other single cause. It's estimated that about half of all farmsteads are **not** properly protected, either because of lack of any installation, or improper installation. There's really no reason why a great deal of the \$61,000,000 toll in farm fires, as recorded for 1961, couldn't have been avoided.

Chances of a lightning strike are pretty strong—there are from 40 to 50 strikes per square mile each year in this country. With chances of a lightning strike as great as this, the need for positive protection becomes pretty apparent. Once you've decided to do something about it, the question is, how do you know that you're getting what you should have? There is only one way you can be sure that you're getting a good installation, that is to deal with a supplier who can furnish you the Underwriters Laboratories Master Label.

Any reputable supplier will be able to have mailed to you a brass plate which certifies that your lightning protection installation meets Underwriters Laboratories specifications. He might be able to show you a sample plate, but he should **not** be able to give you one upon completion of the job. This must be sent to you by the manufacturer who supplies material to him.

This may seem complex, but it's the key to your protection. The various manufacturers in the lightning protection industry engage the Underwriters Laboratories to provide a program which protects you, the customer.

Quality Check

Underwriters Laboratories conducts inspections of the work done by all qualified installers of lightning protection systems to assure that the quality of installation is what it should be. They do not check all installations, but they check enough to assure that quality of work is maintained. This inspecting is paid for by the participating manufacturers.

Then, after your job is finished, your supplier requests his manufacturer to send you the Underwriters Laboratories Master Label, which has a serial number on it. Reputable suppliers are willing to wait before they bill you for work done until you have received your Master Label. This is usually about 30 days after completion of the job. You would be wise to make this part of the deal, because no disreputable supplier can furnish you a Master Label—and you can't afford to deal with a disreputable supplier.

Even with a reputable supplier, there are things you should explore. As farmsteads get more complex, there are more metal objects (such as large motors, barn cleaners, etc.) that should be tied into the protection system. Also, you'll have more complete protection for appliances and equipment if you have arresters installed on your electric lines. You should consider protecting your trees—tall trees near buildings may be hit, causing damage to both trees and buildings.

You will save on your insurance costs with many insurance companies if you have adequate lightning protection. An Underwriters Laboratories Master Label can save you about \$20 a year in premiums on \$25,000 worth of insurance protection.

You may not have a qualified installer near you, as there are not a great many. For a list of them in your area, you can write the Lightning Protection Institute, 53 W. Jackson, Chicago 4, Illinois.



10-footer holds 11 bags

**NEW COMBINATION HOPPER
GIVES IH No. 10 MORE
FERTILIZER CAPACITY
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Now, carry more fertilizer and spread it heavier than ever before with a No. 10 drill, to speed seeding and make heaviest fertilization practical.

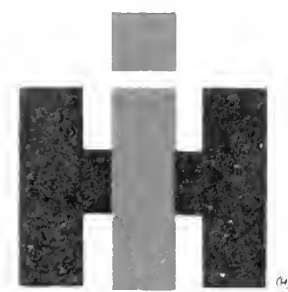
Dump over 900 pounds of fertilizer into a 10-foot, 8-inch IH combination-hopper drill. It holds 85 pounds per foot! Apply up to 890 pounds per acre, or as little as 92. When work is done, open the *exclusive* drop-bottom for easiest fertilizer cleanout.

Tests show that IH star feed-wheels meter more accurately at all speeds, all rates, than other types. Individually-adjustable gates for star wheels assure more uniform delivery.

You do an unequalled seeding job with the No. 10, too. Precision-built fluted rolls meter seeds with extreme accuracy. Exclusive front-delivery openers place all seeds at the *same depth* for uniform

germination, better stands with less seed. Hoe-type openers adapt the No. 10 for dryland use.

For lighter fertilizing, get the No. 10 with separate attachment. Either way, see one soon at your IH dealer.



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Opportunities In Agriculture

By ROBERT W. TAYLOR*

MANY FARM boys would like to stay in agriculture, but it isn't possible for them to stay on the home farm. Fortunately, as every farm boy knows, there is more to agriculture than farming. There is the whole idea of farm supply industries which provide feed, fertilizer, machinery, as well as services such as agricultural education on all levels, veterinary medicine, selling, and agricultural journalism.



ROBERT TAYLOR

There is also the entire complex of food processing and distribution industries which deal with the movement and handling of the food product from the farm to the dinner plate. Right now three times as many men are employed in this agribusiness complex as are employed in farming. While there are good opportunities for some on the farm, there are far greater opportunities for farm youth in the agribusiness side of agriculture.

* Bob grew up on a farm near Lawtons, New York, and is now a graduate student and instructor at Purdue University.

How can a farm boy prepare himself for productive agricultural work? A good way to find out what prepares a man best is to find out what training package earns the best salary. Employers pay more for people they feel will contribute most. Most of the four-year graduates in Agricultural Economics at Purdue in recent years were hired into agriculturally associated positions, and their average beginning annual salary was about \$5,300, with a few as high as \$6,500. For various reasons, college is not a good bet for everyone, but most can benefit from it.

Consider College

There are several reasons why a young person should seriously consider entering college. From the national viewpoint, the investment in education for the people in our country has paid handsomely in dividends of living and world leadership. The college graduate's chance of unemployment is but a small fraction of that of the untrained worker. A university education broadens one's perspective and understanding of the complexities of life, and it widens the horizons of opportunity.

Our Land Grant Colleges provide an excellent opportunity for a good education. These colleges, started a hundred years ago, were set up with the idea of providing an educational opportunity for all. This doesn't mean

that everyone passes all his tests or that he can graduate, but it does mean that he can compete fairly with others for a good education.

Money Available

Land Grant Colleges are tuition free to state residents. With the increasing willingness on the part of lending institutions to loan money for an educational investment, the availability of many scholarships, and the opportunity to work on campus, few students should find that the cost of an education is out of reach. The Land Grant Colleges throughout the Northeast and the rest of the country enjoy a fine reputation for good—not easy—training.

When we choose an occupation, we owe it to ourselves to have considered very carefully many alternatives, including areas completely outside of farming and agriculture. How can we be sure we're doing the best thing if we don't know about other alternatives? I think it is a mistake for a farm boy not to seriously consider employment opportunities other than agriculture.

How satisfying it is then for him to find that the agriculture he loves is his best alternative! Conversely, how much better it is to find out early that other areas are of more interest to him, than to endure an agricultural position for years, longing to be doing something else.

Few entering college students are sure of what they want to do after graduation. Here are three yard-

sticks that I find useful for sizing up an occupation:

First, the job must hold a continuing interest. We will devote a great deal of time to our work and how much happier we will be if we enjoy it! Second, we must have an aptitude for performing well in this occupation, and finally it should be one with a promising future. It is much easier to advance in a growing rather than a stable or declining business.

Chose Economics

The work that I have chosen is agricultural economics, a field fascinating to me. Have you wondered about the way milk is priced? The production of butter has far exceeded sales to consumers, and low butterfat fluid milk is in demand by our diet-conscious people, yet the farmer is still paid in part on the basis of butterfat production.

This kind of problem is the type that the agricultural economist tries to solve. Research to find solutions to problems, and the education of youth to better understand our agriculture as it relates to our society, are the challenges that face me in my chosen area.

The situation faced by the family when not all the children can return to the farm is not one that is solved quickly or easily. But if each family member has a good education and other employment alternatives, it makes the decision an easier one.

The number of alternatives facing each individual is very much dependent on his education, or lack of it. The particular college or university from which the education was earned is not nearly so important as the fact that the student found an area of interest and he did his very best to improve himself in it.

The field of agriculture—including both farming and agribusiness—holds many rewarding opportunities for those prepared to meet its challenges. Whatever occupation we choose, a farm background, coupled with a broad education, is a fine preparation for a happy and productive life.

LEARN SOMETHING NEW

DURING 1963 the Extension Service of the Pennsylvania State University will offer 64 courses in agriculture and 12 in home economics.

Correspondence courses are limited neither by occupation nor age, including farmers, homemakers, lawyers, accountants, teachers, nurserymen, etc. etc. Some feel that the courses will enable them to do a better job where they are; others that they can fit themselves for better jobs. Sometimes hobbies are the subject, a long way from the occupation of the person who is studying.

Perhaps Milady would like to create her own hats. There's a course for it, including most attractive hat types for different face shapes; time and place to wear hats; how to cure pheasant skins and feathers; how to fashion hats from fabrics, feathers, flowers, ribbons, straws, felts. And six lessons only cost \$1.50 in this particular case.

There are lots of long winter evenings ahead of us which could be enlivened by taking up one of these courses. For information as to exactly what is available write to Correspondence Courses, 202 Agricultural Education Building, The Pennsylvania State University, University Park, Pennsylvania.

The success of Mohawk Airlines stems largely from the tailoring of its service to the transportation needs of business and industry in New England, New York State and west to Pittsburgh, Cleveland and Detroit.

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Personal Farm Experience

Roughage Supplement

We operate a dairy farm carrying about 55 milkers plus young cattle in Bradford County, Pennsylvania, one of the counties named as a disaster area because of the dry weather last summer. A few years ago, we



RALPH CULVER

used corn cobs to splice out our roughage supply and decided to do it again in 1962.

A neighbor about 25 miles away grows around 170 acres of corn each year and shells it on the farm. The cobs from the 1961 crop (about 30 tons of them) were available for just taking them away.

We know from Morrison's "Feeds and Feeding" that corn cobs are 45.7% TDN. Urea and high protein materials such as soybean oil meal or linseed oil meal were used to grind with the cobs; molasses was also added. I want to emphasize that this material is a replacement for hay and not for grain—levels of grain feeding were not changed.

We feed four pounds of the cob mixture per cow at night and four pounds again in the morning, plus all the hay they would eat and, of course, grain. The herd produced on this combination as well or better than it ever has. Our records show that over the past few years we have sold about 12,000 pounds of milk per cow.—Ralph Culver, Laceyville, Pa.

Higher Yields

We have been stepping up corn yields in recent years. In '62 we averaged 26 tons per acre.

While we have increased the amount of commercial fertilizer about 50 pounds per acre to 300 to 400 pounds of 12-12-12, I think the two important practices are the use of more lime and chemical weed control. As a result of soil tests we have been adding a ton of ground limestone per acre for corn, in addition to the usual lime application in the rotation. We expect that two or three such applications will bring the pH up to where it should be, and then one application of lime per rotation.

We have never tried planting without harrowing. We use Atrazine to control weeds, and do not cultivate the corn.

This farm grows 30 acres of corn for silage. We are not planning to increase acreage, but, as I said, we have been interested in getting better yields. — Baumes Marshman, R.D., Oxford, N. Y.

Likes Corn Silage

In 1962, we grew 60 acres of corn. All of it went into the silos; we have one 24' x 50', a 16' x 50', a 20' x 40', and a 14' x 40'. A covered feed bunk 100 feet long is supplied by the largest silo; our plans call for carrying corn silage in this into the summer.

We heavily manure a field ahead of corn, then put on 300 pounds of urea per acre and plow both down. With the planter, 250 pounds per acre of 10-20-20 go in as a starter. This past year we had planned to sidedress with more nitrogen, but it

was so dry that the plants weren't using the plant food available.

We use 40 inch rows, like to get corn plants at an interval of 4 to 6 inches. Atrazine applied right after planting with a complete coverage pattern does a good job of weed control, combined with cultivation when corn is 6 to 8 inches high. Cultivation is done at odd times; it's particularly essential on heavy clay fields where crusting is a problem and soil needs opening up.

Our usual rotation is hay, corn,

corn, oats, and hay; however, we have sometimes grown corn on the same field three years running. We've tended to concentrate corn on the most fertile land that is also level and closest to the barn.

On the corn crop ahead of oats in which a new seeding is to be established, we don't use Atrazine because of damage that has shown up in the seeding the following year. I expect that really precise rates of application of this herbicide would prevent this happening, but we play it safe by using 2,4-D on corn the year ahead of seeded oats.

We feed 50 pounds of corn silage per cow per day; we don't have any real reason for making this a maximum, but so far have done so. We

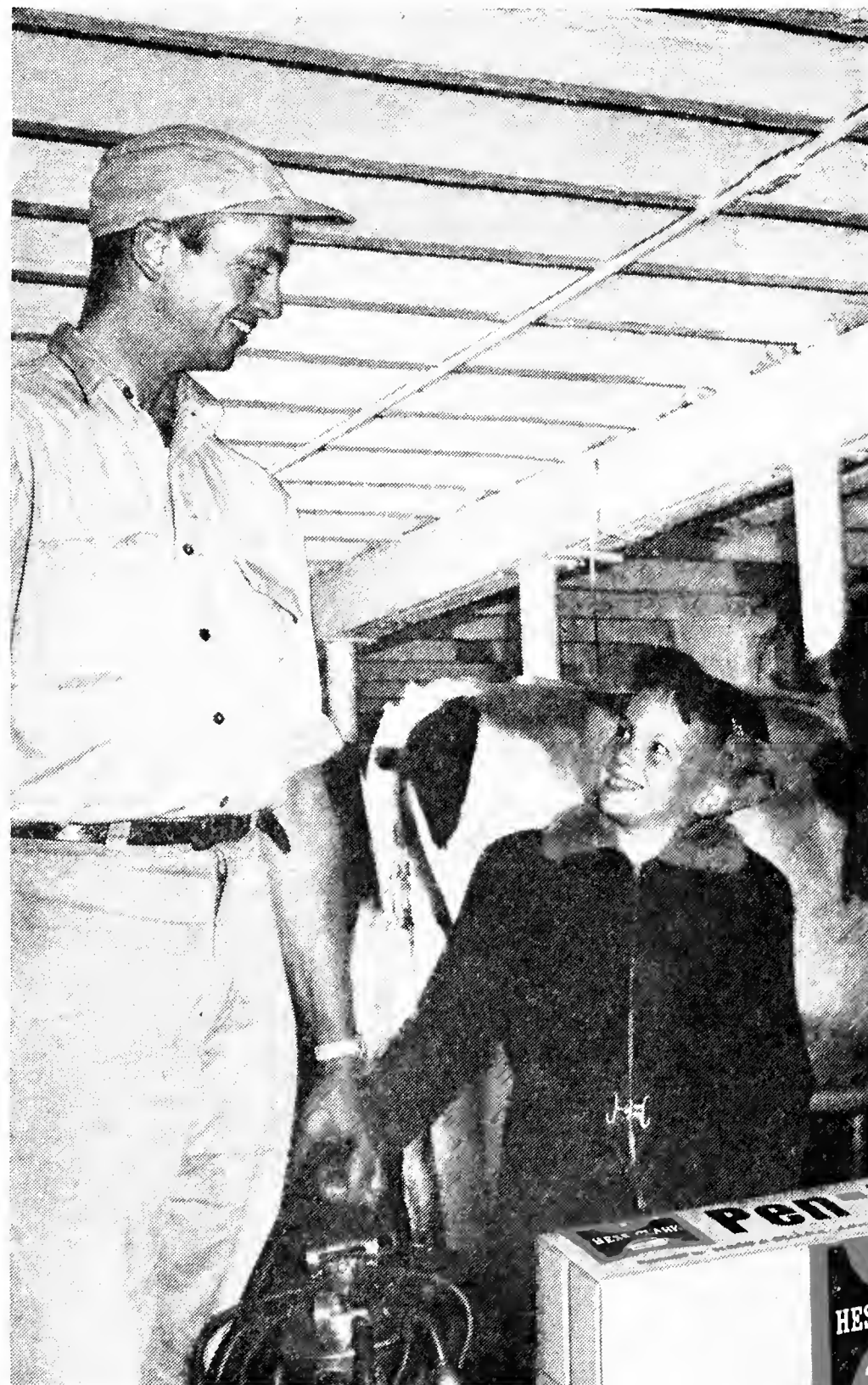
think corn silage is a better feed than grass silage, but we can't really prove any difference in levels of herd production between the two. By the way, our grass silage is wilted.

When corn is ready to ensile, it can really be moved in a hurry—it's not unusual to put in 40 to 50 loads a day when things get rolling. It's a crop that fits our mechanization and production patterns very well.

Corn is well dented when ensiled, and we think it's pretty foolproof in terms of quality compared to harvesting grass silage. Corn silage always seems to have high palatability, but grass presents the problem of getting the correct moisture level. —Norman W. Allen, Schaghticoke, N. Y.

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*Data available on request

Treat mastitis today with "double-action" Pen-FZ. Help cut production losses and get your cows back in the milking line fast.

Prevent freshening flare-up

The best time to treat cows that have a history of mastitis is during the dry period. Treating dry cows with Pen-FZ helps to prevent freshening flare-up, and eliminates the need to hold milk off the market.

Pen-FZ is available at your local drug, feed or farm supply store.



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Careful study, testing, and evaluation have determined the scientific compounding of 13 "tailor-made" legume-grass formulas. Each is designed for specific situations. Each includes those varieties which, based on field experience and test work, will do the best job.

Before you plan your spring plantings, investigate Hoffman HPS Formulas. The right balance of varieties may make a sizable difference in your return from every acre. Hoffman HPS Formulas are ready-mixed, pre-inoculated, and ready to sow. Ask your Hoffman Seed Man for details, or write direct.

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OATS • FUNK'S G-HYBRIDS

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One application of Dr. Naylor's Dehorning Paste on horn button of calves, kids, lambs—and no horns will grow. No cutting, no bleeding, 4oz. jar—\$1.00 at your dealer's, or mailed postpaid.

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Dr. Naylor's
DEHORNING
PASTE



Bruce Devereaux



Lorna Stoyell



John Karn



Gail Greinert

New York 4-H Champions

By H. A. WILLMAN*

FOR A BOY or girl to be chosen as a State 4-H sheep, swine, beef or horse project champion, or as a winner for one of the dairy breeds, is among the finest honors that can come to a 4-H member.

As one part of the State 4-H Animal Husbandry Program, each county annually nominates their most outstanding 4-H members for State achievement recognition. One evidence of the interest and keen competition which has developed in the horse and meat animal program is the fact that this year 40 counties nominated 126 county champions. These nominees represented more than 5,000 New York 4-H boys and girls who are enrolled with livestock other than raising dairy cattle.

The four livestock winners for 1962 were: Bruce Devereaux, Appleton, Niagara County, swine; Lorna Stoyell, Moravia, Cayuga County, beef cattle; John Karn, Belfast, Allegany County, sheep; and Gail Greinert, Ballston Spa, Saratoga County, horses.

An ever-increasing number of splendid success stories come out of the 4-H program annually, and the record of this year's winners is no exception. For example, Bruce Devereaux started his project seven years ago with a Yorkshire sow pig sponsored by the Lockport Kiwanis Club. Since 1956 he has sold 188 head of hogs, several of which have been used to start other 4-H Club projects. At the present time, his enterprise includes two aged sows, two gilts, a boar, and forty-three feeder pigs. In addition, he raises several acres of corn and owns five head of dairy cattle.

Miss Lorna Stoyell has completed seven successful years of baby beef feeding, and has built up a substantial savings account to help finance her college education. One of her career objectives is to become a county 4-H Club agent.

For seven years she has exhibited her cattle at the Big Six Picnic and the Caledonia Stock Show, placing near the top in State-wide competition in showmanship, judging and record keeping. She showed the Champion Angus steer, won a Master 4-H Beef Showmanship Award at Caledonia this year, and for several consecutive years her beef project records have rated an "Award of Excellence" in the State 4-H Record Program.

Seven years ago, John Karn started his project with four Hampshire ewes purchased from Alton Dunlap, a nearby breeder. Since that time he has developed a flock of 47 registered ewes, and has learned much about the management of a purebred flock. John has learned to dock and castrate lambs, to fit and trim sheep

* 4-H Club Livestock Specialist, Cornell University

for show, to care for newborn lambs, to feed lambs for market, and to shear sheep. He sells his wool on grade through a cooperative wool and sheep growers association. John attributes much of his success with sheep to the use of good rams, feeding grain to ewe lambs, and to controlling parasites. He says that he likes sheep "because they require little expensive housing, make excellent use of hill pastures and low cost roughage, and they have made him money that will help further his education in college after graduation from high school in 1964."

Gail Greinert, now in her eighth year of 4-H horse work, has a record of high achievement and full participation in many phases of the 4-H program on a local, district, state and national level. She not only works with horses, but has successfully completed projects in poultry, ornamental horticulture and numerous homemaking projects. Whether her participation has been in style dress reviews, sewing, cherry pie baking, food preservation, horse shows, trail rides, record keeping, or demonstrating, her accomplishments have been of the highest order.

Gail has been a motivating member and active in the development of "The Boots and Saddle Club," one of the outstanding 4-H horse clubs of the State. Some of her recent top awards in State horsemanship and Horse Show competition have included membership on three State Fair winning 4-H Parade Groups, first on showmanship, and an Award of Excellence three times in record keeping, besides numerous citations for local, county and district demonstrations, exhibits, and community welfare assistance.

Other Fine Records

Among the top 4-H contenders for the State Swine Award were Gary Hutchison of Allegany County; Owen P. Stuart, Cattaraugus; Timothy Blodgett, Chautauqua; Richard Cook, Erie; Charles Sinclair, Genesee; John Scofield, Jefferson; James Crandall, Livingston; Donald McAvoy, Niagara; Raymond Gannon, Saratoga; Arthur Gabrielse, Wayne; and Donald Jensen, Yates.

In the Beef Division, there were also close contenders for the State Project championship, namely: Pollyanna Radley, Allegany County; Rose Cuddeback, Cayuga; Kenneth James, Chautauqua; Andrew Marchisio, Columbia; Thomas McCloy, Cortland; Bill Leachman, Dutchess; Ralph Timmerman, Jefferson; Sylvia Mello, Rensselaer; Linda Greene, Tompkins; and William Welcher, Wayne.

The Sheep Members whose records paralleled the achievements of John Karn the closest were: Carolyn Lant, Chemung County; Dale Wilson, Columbia; Thomas Sloan, Cortland;

(Continued on Opposite Page)

TIRED OF ACID-RIDDLED SILO WALLS?

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Now! You can get the fast relief you need from nagging backache, headache and muscular aches and pains that often cause restless nights and miserable tired-out feelings. When these discomforts come on with over-exertion or stress and strain—you want relief—want it fast! Another disturbance may be mild bladder irritation following wrong food and drink—often setting up a restless uncomfortable feeling.

For quick relief get Doan's Pills. They work fast in 3 separate ways: 1. by speedy pain-relieving action to ease torment of nagging backache, headaches, muscular aches and pains. 2. by their soothing effect on bladder irritation. 3. by their mild diuretic action tending to increase output of the 15 miles of kidney tubes.

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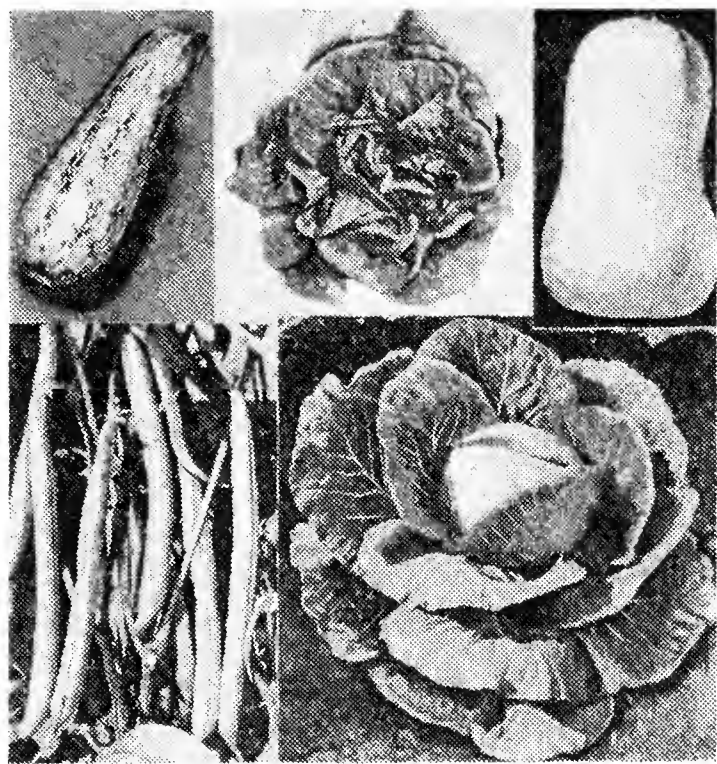
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Indiana State Fairgrounds
Indianapolis, Indiana
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C. O. HOUSE Arcadia, Indiana

Beginning at top left and going clockwise are: Greyzini summer squash, Buttercrunch lettuce, Hercules squash, Emerald Cross cabbage, and Executive snap bean.



New Vegetables For '63

WHAT TASTES better than home garden vegetables picked as needed, fresh, tender, and ripened to full flavor and fruit sugar content?

And what adds more zest to a garden than to try new varieties in addition to the old standbys?

This year there are five All-America vegetable selections to choose from, as well as other new varieties produced by the various seed companies. The All-America selections have gone through comparison tests with nearest varieties of their kinds from southern Canada to Mexico City, and turned in superior performances. It would be fun to see what they can do in your home garden.

First let us mention the new **Buttercrunch lettuce**, developed by Dr. G. J. Raleigh of Cornell University. It is interesting to know that this lettuce can be grown free of pesticides, and, according to Joseph Harris of the well-known Rochester seed company, it is "better to eat than any lettuce likely to appear in the supermarket." It is a large-growing Bibb type that does not rush to seed and stands for a long time. Again quoting Mr. Harris: "The best part is the hearts, where a thick cluster of leaves and ribs is produced. These blanch to yellow, and are crisp, brittle, free of bitterness."

Emerald Cross cabbage was developed in Japan. It is considered of an ideal size and shape, medium small heads, is very early, and with rich green outer leaves to protect the

tightly packed solid heads of blanching inner leaves.

A new late or winter squash is **Hercules**, a little more rugged than Butternut. Cream colored and fine grained, it should be ripened fully for best quality until the skin is dark buff color and the flesh orange.

Summer squash is represented by **Greyzini**. The name comes from the color, which is grey or light green, and from the fact that it is a zucchini type. It is early and prolific, and a few plants will supply a family all season.

Executive bush snap bean has full round pods, stringless, tender at the eating stage, and an improvement on the popular Tendergreen type. For home gardens, successive plantings should be made each two weeks for a continuous supply.



Real Friends
By ARTHUR MOODY

YE ARE my friends," said Jesus. How often that word "friend" is used thoughtlessly.

Who is your real friend? Henry Ford wrote, "One who brings out the best in you." This writer would add, "One who knows all about you and likes you just the same." Jesus explained, "You are not servants; you are my friends."

The law of friendship is, "Love one another as I have loved you." When Abraham Lincoln ran for the presidency, so history records, he had no money, no political influence, no powerful organization — **his friends elected him**. In youth friends are taken as a matter of course, but with advancing age they're priceless.

The supreme test—"Lay down life for your friends." Again we quote Jesus. Two boys, devoted friends, were soldiers in the last war. After a severe battle one was missing. The other asked permission to search for his friend. His commanding officer at first refused, but finally consented. Time passed, and the private returned without his comrade. His officer reminded him that he'd said, "It will be no use."

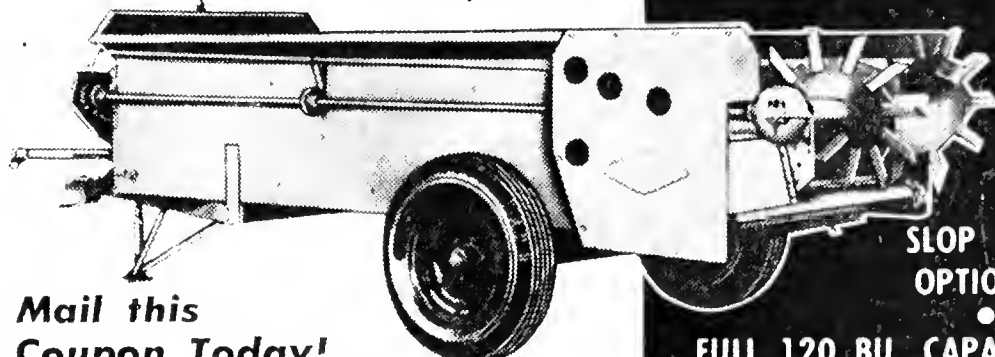
The young soldier replied, "But it was, Sir. I got there just in time to hear him whisper, 'I knew you'd come!'"

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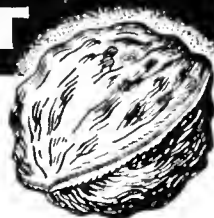
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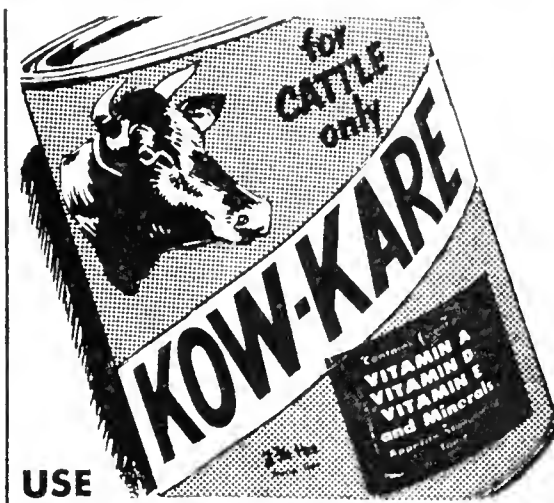


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1963 CATALOG now ready

Mixing Feed on the Farm

(Continued from Page 1)

ter use? Economists have coined a phrase, "The DIRT 5", to serve as a guide to calculate fixed costs. The word "DIRT 5" is obtained from the first letters of **D**epreciation, **I**nterest on investment, **R**epairs, **T**axes, and **I**nsurance.

As a rough estimate, these five items will total annually about 17-20 percent of the first cost for equipment, and about 12-15 percent of the first cost for buildings. Burton Horne, Extension agricultural engineer at Penn State, has coined another phrase, "The 7 ACTIONS." These seven items have no direct economic

meaning, but must be considered when deciding whether or not to engage in a project. They represent the **personal feelings** of the farmer.

His **Attitude** may be such that he would rather grind and mix his own feed than buy the complete ration. He must obtain equipment of sufficient **Capacity** to meet his needs. **Time**liness enters into the picture during the off-season periods when less labor is required for planting or harvesting. Mixing his own feed may provide **Insurance** against bad weather when the complete feed cannot be delivered over rural roads. It gives

a man a certain amount of pride to say he **Owns** his milling equipment, especially if it is relatively **New**. Saving of hard work with bulk handling may be accomplished if the farmer lives in an area where feed cannot be delivered in bulk form. Thus, "The 7 ACTIONS" may tend to offset "The DIRT 5."

What about the cost of ingredients? A feed manufacturer can usually buy all the ingredients for \$15 to \$20 per ton below his price to the farmer. Before he can realize a profit, however, he must pay for (1) depreciation on buildings and equipment, (2) interest on capital invested in ingredients, (3) freight costs on ingredients, (4) storage, treating, and grinding of grains, (5) product insurance (guarantee that feed will per-

form), (6) research and nutrition services, (7) services of a field man, (8) labor for mixing, (9) transportation of feed to the farm, and (10) advertising, office help, fire insurance and various minor items. A farmer planning to mix the complete ration on the farm will have many of these same costs.

Several of the major feed manufacturers use electronic computers to determine the most economical ingredients to use in a ration. After entering the many variables such as percent of protein desired, costs of various feed grains, and costs of the various micro-ingredients, the computer determines the best combination to be used in the desired ration. At present the farmer does not have this service available to him. Assuming the farmer grows at least a portion of his own feed grains, he would still have to use some purchased ingredients in the ration.

Most farmers claim that they have to grow grain to maintain a desirable crop rotation. Thus, they have the grain available, and may neglect to consider it as a cost item. However, if the grains were not used on the farm they could be sold. The market value of the homegrown grains must, therefore, be entered into the local cost of the feed.

Which Mill?

If the farmer has considered all the factors and decides to grind and mix his own feed, how does he decide what type and how much equipment is required? The answer will depend on the size of the operation, degree of feed formulation, personal preferences, etc.

The first item usually considered is the mill. Should it be a burr (or plate) mill, hammer mill, or roller mill? Dealer service, of course, should be carefully considered before deciding on the specific make of mill.

Probably the most common and most versatile type is the hammer mill. Fast-rotating steel hammers force the grain through a steel screen. The size of the openings in the screen determines the fineness of grind. The openings may vary from 1/64 inch in diameter to more than an inch.

The main advantage of this mill is its lower initial cost. It may be driven by an electric motor, or be belt-driven by the farm tractor; pto-driven models are also available. Another advantage is its versatility. It may be used for grinding any grain to a desired fineness; it may also be used for grinding dry hay, or shredding corn stalks for bedding.

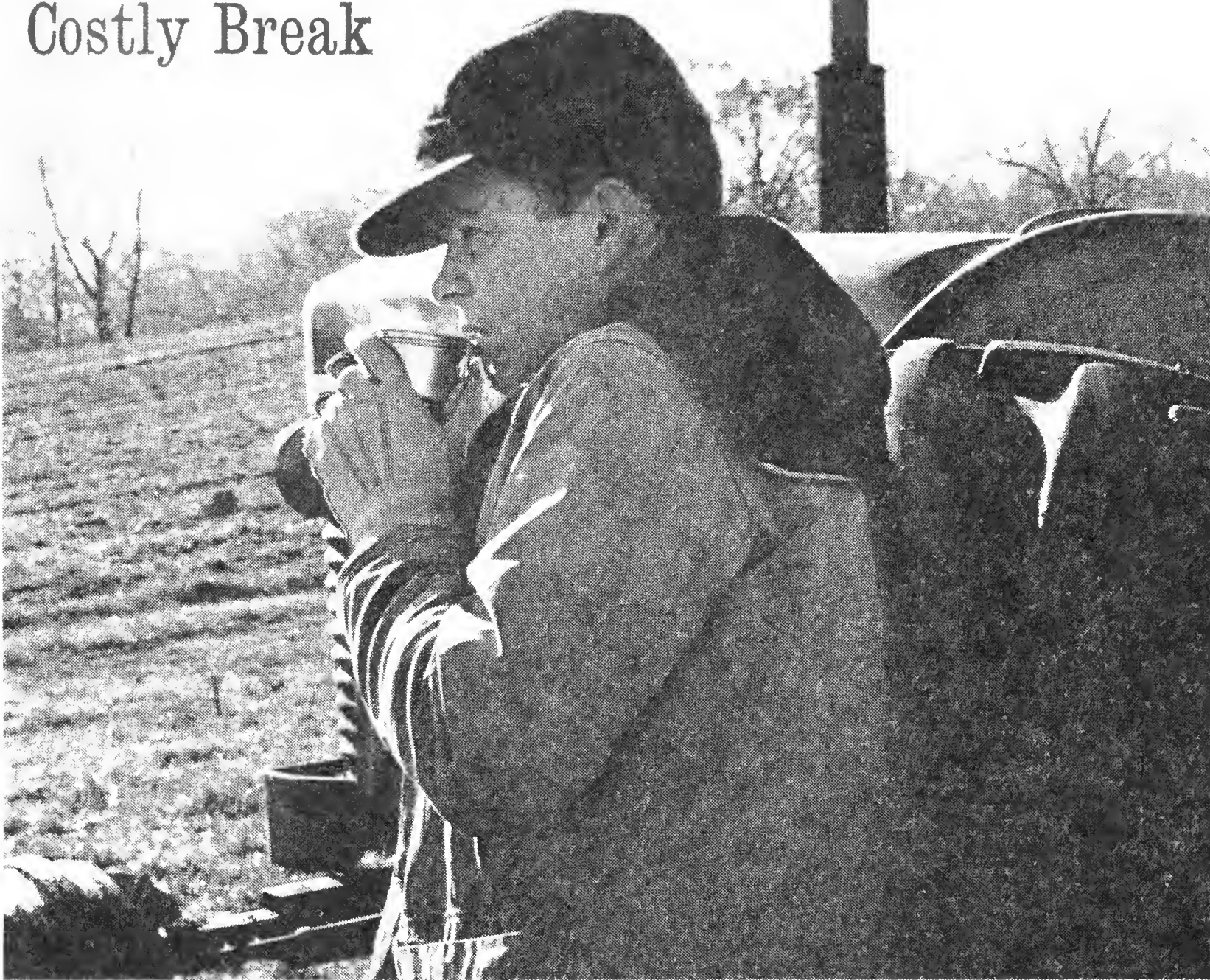
The chief disadvantage is the non-uniformity of grind. Much of the grain is reduced to dust before passing through the screen.

The burr (or plate) mill is a medium-priced mill consisting of two roughened circular plates—one stationary, the other rotating against it. It produces a ground product of extremely uniform fineness. The attrition mill, a modification of the burr mill, is a precision mill with both plates rotating in opposite directions. It produces a product which is even more uniform than that from a common burr mill. With both mills, fineness is controlled by the distance of separation between the two plates.

Both mills require relatively high horsepower per unit of ground feed. They are also extremely susceptible to damage by tramp metal and are damaged by running while empty.

The roller mill (also called a
(Continued on Opposite Page)

Have A Coffee Break... Not A Costly Break



New GLF Power Champ Diesel Fuel gives you complete starting—and stopping—command over diesel-powered vehicles. Faster starts when you're ready to go. Fewer stops for maintenance when you need to go.

Proof is in the product. Two new additives—MPA-D and CI-2—give GLF Power Champ benefit ingredients to reduce maintenance costs, rust, smoke and soot, while it improves ignition starts, winter flowability, engine efficiency, and fuel injector life. Sounds like a lot of work for any fuel, doesn't it? And it is. But MPA-D and CI-2 have demonstrated these advantages in a series of field tests.

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GLF PETROLEUM SERVICE

MIXING FEED
ON THE FARM

(Continued from Opposite Page)
crimper or cracker) is the highest initial cost of the three general types. It has, however, the highest capacity of the three when the grain does not have to be finely ground. The roller mill is most useful for crimping small grains and corn for livestock feeding. High - moisture corn (up to 35-50 percent) can be run through the roller mill with no accumulation of crushed grain on the rolls. This would not be possible with a burr or hammer mill.

After the type of mill is selected to fit the farmer's needs, he must decide on capacity. A two-horsepower electric hammer mill with an output ranging from 500 to 2,000 pounds per hour (depending on fineness of grind) may be sufficient for many farms. Or a mill requiring up to 50 horsepower and producing up to 15 tons per hour may more nearly fit the needs. The small mixer-grinder costs approximately \$700 complete, while the large mill may cost up to \$2,000 without the power unit.

A small mill can often be equipped with completely automatic controls to allow 24 hour operation with no supervision. While augers, timers and the automatic controls may increase the cost to nearly that of a large mill, labor and operating costs will be reduced.

Which Mixer?

What type of mixer should be purchased? Vertical batch mixers provide high capacities. However, if only two or three grains are to be mixed with a complete supplement, a combination mixer-grinder will eliminate the need for a separate mixer. Pre-mixes are available to thoroughly mix the micro-ingredients in small batches. This pre-mix is then blended with the ground grain and other supplements.

On swine or poultry farms where the feeders are widely scattered, the final mixing may be accomplished in transit from the mill to the feeders. Several brands of these mixing-transport units are available. While they are more expensive than the conventional feed wagon, the batch mixer may be eliminated. It also saves time by combining two operations.

Portable grinders and mixers are available for farm use. In many cases the mixer is an integral part of the unit. The entire unit is mounted on a frame so it can be pulled by the tractor to the point of use. The portable grinder-mixer is particularly convenient when grain is stored at several locations, or when several farmsteads are owned by one farmer. The mixer and unloading mechanism can be operated independently of the grinder, saving power and wear on the grinder itself.

Storage space must be provided for the completed feed, and for bagged pre-mixes or concentrates—ingredients such as soybean oil meal, alfalfa leaf meal, bonemeal, etc. In most instances, storage is already available for homegrown grains. However, if a major portion of the grain is purchased, enough storage space should be provided for large quantities. Buying the grain in quantity, such as carload lots, represents considerable savings in final cost.

In addition, a work area must be provided. The pre-grinding storage, the grinding and mixing units, the storage for the complete feed, and the feeding system must be carefully planned to fit into a materials

handling "production line." Fitting all of the units into a complete system is an important factor in the success of any operation.

An Example

Let's look at a practical example of the factors involved in on-the-farm grinding and mixing. We'll assume a farmer can get a custom operator to grind and mix feed at his farm for 16 cents per 100 pounds. He is considering buying a portable pto-driven grinder with an attached mixer. If he grinds an average of 200 tons per year, what will be his cost per 100 pounds?

Labor will be left out of the calculations, assuming that the same amount of time is involved in home grinding as is required for getting the ingredients ready for custom

grinding. The capacity of the mill he's thinking about is two 2-ton batches per hour. The tractor uses fuel at the rate of 1½ gallons per hour, at a cost of 16 cents per gallon without fuel taxes.

COSTS: PTO grinder-mixer with all accessories	\$2,300
Minus salvage value	300
Net cost	\$2,000
FIXED COSTS:	
Depreciation (based on 10 year life and on net cost of machine)	\$ 200
Interest (6% of ½ of net cost)	60
Repairs (2½% of net cost)	50
Insurance and taxes (1% of net cost)	20
Total annual cost	\$ 330
Fixed cost per 100 pounds =	
\$330/yr	= \$.0825/cwt.
(200 T/yr.) (20 cwt./T)	

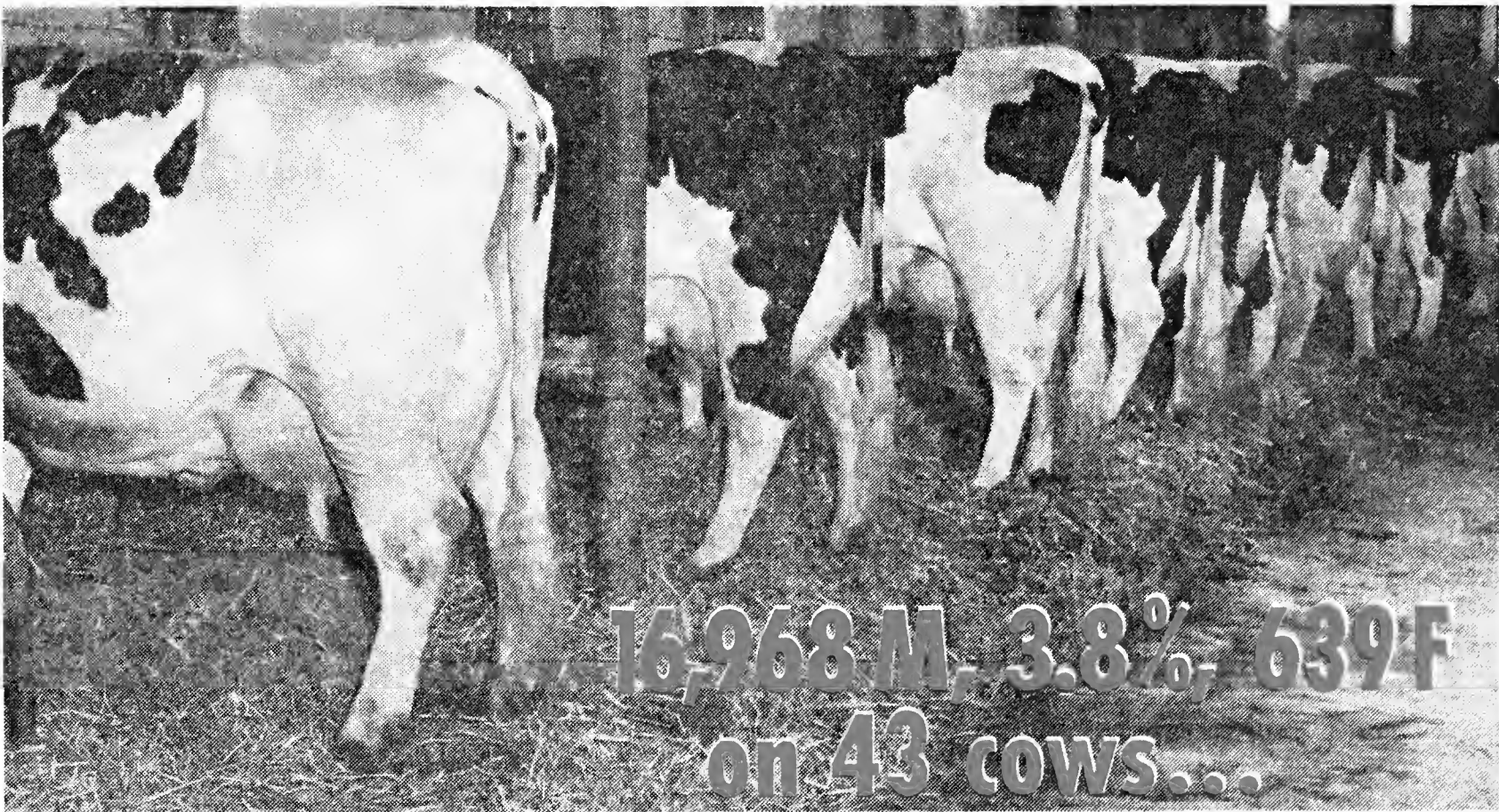
Fuel =
(16c/gal.) (1½ gal./hr.) = \$.003/cwt.
(4 T/hr.) (20 cwt./T)
Total — \$.0855, or about 8½c/cwt.

It is now a matter of decision. Is it worth 7½ cents per cwt. for the farmer to grind his own feed? On a yearly basis, he will save \$300.

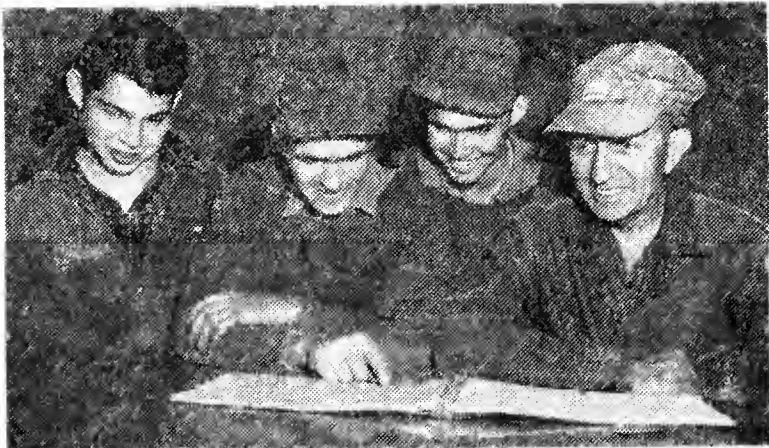
Suppose that during the life of the machine the farmer decides to expand. His new feed requirement is 250 tons per year. Using the same cost figures as before, his cost per cwt. is now reduced to 6.9 cents and his annual saving is \$455.

No single solution exists to satisfy the needs of all dairy, poultry and livestock farms. Each has its unique problem, and each will have a different final answer.

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THE CLEVERLYS — (from left:) Bill, Jim, Bob and Olin.

Asked what contributed to this high level production, Jim Cleverly replied, "Everything has got to work out quite well; first the ability has to be bred in the cows, then they have to be fed to bring it out; not too many problems with diseases and injury and there may be a little luck in it. The last few years we have had

exceptionally good first calf heifers from the top NYABC AI Proved Sires, and this helps a herd average."

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YEARLY DHIA HERD AVERAGES
SHOW A STEADY AND CONTINUED INCREASE.

Year	No. Cows	Milk	%	Fat
52-53	41	13,020	3.5	454
53-54	43	12,977	3.5	456
54-55	41	13,360	3.7	488
55-56	42	13,190	3.7	493
56-57	42	13,830	3.7	509
57-58	42	13,950	3.7	518
58-59	43	14,558	3.7	540
59-60	43	14,625	3.7	543
60-61	42	15,470	3.8	581
61-62	43	16,968	3.8	639

Whatever your present herd average, NYABC can help you achieve higher herd production and greater dairy income. Next time, call your NYABC technician.



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May Issue Closes April 6
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MEADOW VIEW CHICKS—Fagan-Rapp Line cross Leghorns, Harco Rhode Island Reds, all Harco Sex Links, Lawton Buff Sex Links, Peterson Cornish Cross meat birds. Hatch every week. N. Y.-U. S. Approved. Pullorum clean. Meadow View Chicks—Henry M. Fryer, Greenwich, N. Y. Phone NY 2-7104.

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(Continued on Opposite Page)

(Continued from Opposite Page)

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HOBBYIST PENPAL Collectors Bulletin. Interesting listings. Copy 25¢, refund coupon. Acme, Copley St., Auburn, N. Y.

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ADDITIONAL CLASSIFIED ADS (Continued on Page 32)

Science Shrinks Piles New Way Without Surgery Stops Itch—Relieves Pain

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4808
10-20



9174
6-14

4808. Four-part wardrobe — jacket, skirt, long coat, sheath. Printed Pattern in Misses' Sizes 10-20. Size 16 jacket, skirt 2¾ yards 54-inch fabric. 35 cents.

9174. Pleats fall free from yoke; cinch waist with flip-over sash. Printed Pattern in Girls' Sizes 6, 8, 10, 12, 14. Size 10 dress takes 3½ yards 35-inch fabric. 35 cents.

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4985
12½-24½



4503 36-48



4996
14½-24½



4933
12½-22½



9071 14½-24½



4907
10-20



4718 MEDIUM



9073
2-10



9462
10-16



4812 12½-22½



4532
10-18

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EAST MEETS WEST!

By VIRGINIA D. SMITH, Chairman
American Farm Bureau Women's Committee

A GREAT ENGLISH poet once wrote: "Oh, East is East and West is West, And never the twain shall meet."

But if Rudyard Kipling could have looked ahead into the mid-twentieth century, he would have written,



Mrs. Virginia D. Smith

"East is East and West is West, And one day the twain shall meet."

This fall, in Melbourne, Australia, 10,000 miles from home, I sat in a huge auditorium where 3,000 women from East

and West, from North and South, had gathered to spend nearly two weeks working together.

The occasion was the Triennial Conference of the Associated Country Women of the World, and this delegation, from 24 countries, was representing a membership of 7½ million women from around the world. Heads of delegations came to the platform to bring greetings from their organizations. Messages were read from President Kennedy, from Queen Elizabeth, and from many other Heads of State.

All business was conducted in English, although, for many delegates, this was not their native tongue. I was amazed at the knowledge and perception of these women, and at the effectiveness with which they presented their viewpoints, even when speaking in a language which was foreign to them. Throughout the Conference a spirit of harmony, understanding, and even affection prevailed.

The Associated County Women of the World was started in England more than thirty years ago, and has spread until its membership includes groups of women in thirty-four countries. Annual membership dues are

five pounds (\$14.00), but ACWW is largely financed by a good will fund, called "Pennies for Friendship," to which most of us contribute. The headquarters' office is in London.

In the United States, the National Home Demonstration Council, the American Farm Bureau Women, the Woman's National Farm and Garden Association, and the Master Farm Homemakers are members of ACWW, along with many State and branch organizations of these groups. In total, nearly 70 organizations in the U. S. are affiliated. Member organizations in our country are united in the Country Women's Council, through which we work together to make ourselves more effective participants in this international organization.

The objectives of ACWW are to build understanding and friendship among the women of the world, to provide a voice for women at international council tables, and to improve the lot of women in emerging nations.

In this short article, I cannot tell you of the many concrete accomplishments of ACWW. For instance, through our Lady Aberdeen Scholarship Fund, we are giving outstanding young women from developing countries an education in nutrition, women who will soon be returning home to use their knowledge to help their own people. I could tell you more about this and other projects.

(Continued on Page 32)

GOD BLESS

By Mary C. Ferris

God bless the road one travels
To fulfillment of his dreams.
God bless the friendly bridges
That span dividing streams:
The arts and kind endeavor,
The efforts to unite
The hearts of men, though deep between
Run rivers black as night.

GRANGE WINNER



MRS. GERRIT TEKRONY, left, of Binghamton, N. Y., proudly displays her afghan which won first prize and Best of Show awards in the 1962 National Grange Needlework Contest.

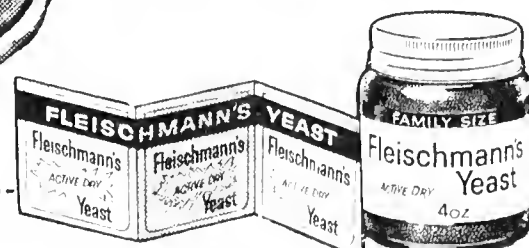
With Mrs. Tekrony is Mrs. John Vanderbeck of Rochester, who was chairman of last year's New York State Grange Service and Hospitality

Committee. At a recent Pomona meeting in Vestal Grange Hall, Mrs. Vanderbeck presented Mrs. Tekrony with a check for \$1150. The check included the first prize of \$150 and the Best of Show Award of \$1,000. Mrs. Tekrony said it took her about four months of spare time to work the afghan. Photo — Courtesy The Evening Press, Binghamton

Plum Perfect Sugar-Plum Ring!



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and tenderly
delicious with
Fleischmann's high,
high-rising yeast



SUGAR-PLUM RING

1 package Fleischmann's Active Dry Yeast
½ cup warm water (105-115° F.)
½ cup evaporated milk
1 tablespoon sugar
½ teaspoon salt
1 tablespoon Fleischmann's Margarine

1¾ cups unsifted flour
½ cup finely chopped pecans
2 tablespoons sugar
1 teaspoon cinnamon
10 (1-pound can) whole plums,
halved and drained

Dissolve Fleischmann's Yeast in warm water in warm mixer bowl. Add evaporated milk, 1 tablespoon sugar, salt, Fleischmann's Margarine, flour. Beat 1 minute at slow speed and 2 minutes at medium speed on electric mixer. Cover; let rise in warm place, free from draft, until doubled, about 40 minutes. Combine pecans, 2 tablespoons sugar, cinnamon. Divide

dough into 20 balls and roll in nut mixture. Arrange ten in greased 9-inch ring mold; cover each with well-drained plum half. Add second layer of balls and top with remaining plum halves; sprinkle with rest of nut mixture. Cover; let rise in warm place, free from draft, until doubled, about 30 minutes. Bake in moderate oven (375° F.) 35 minutes or until done.

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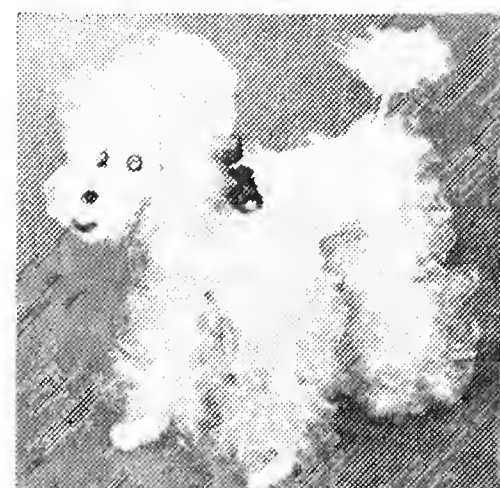
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SOUP'S ON!

By ALBERTA D. SHACKELTON



SOUP CAN be the cook's best friend! Since it is such an important item in the

diet, every homemaker should develop her "soup specialties." Served as a first course, the right soup, tastily seasoned, makes the meal. Most soups, however, are nutritious enough to serve as the mainstay of a noon or night meal, and supplemented with a salad, breadstuff or sandwich, and dessert, a "soup meal" is particularly good at this time of year.

Be sure soups are served piping hot, and don't forget a crisp accompaniment and attractive garnish where desirable. Plan to make more than enough soup for just one meal. Some soups improve in flavor with standing and reheating, and additions may be made in the way of leftovers, extra milk, extra broth, or canned soups.

Save all trimmings and bones from meat, broth from cooking meats and vegetables, and juices from canned vegetables, and even small amounts of left over gravies to add to soups. Bring your soups steaming hot to the table for serving in Grandma's old tureen, or any of the new tureen versions which can be plugged in for keeping soup hot, or any large suitable, heatproof bowl.

Below are some soup recipes to add to your collection to be used these cold winter days.

PRESIDENTIAL FISH CHOWDER

(New England Dairy and Food Council)

- 2½ pounds haddock fillets
- 2 cups water
- ¼ pound butter
- 1¾ cups thinly sliced onions
- 2 tablespoons flour
- 2½ cups cubed potatoes
- 1 cup coarsely cut celery
- 1 bay leaf crushed
- 2½ teaspoons salt
- ¼ teaspoon pepper
- 4 cups milk
- 1 cup light cream
- 1 cup commercial sour cream

Combine haddock and water in large kettle. Simmer, uncovered, 5 minutes or until fish can be flaked with a fork. Strain and return broth to kettle. Boil fish broth 10 to 15 minutes or until reduced to about 1½ cups. Remove skin from fish.

Melt 5 tablespoons butter, add onions, saute until clear (about 5 minutes). Remove from heat, stir in flour, and gradually add fish broth. Add potatoes, celery, bay leaf, salt, pepper, and 1 cup of the fish. Simmer, uncovered, about 20 minutes or until potatoes are tender. Scald milk, add cream and sour cream, and stir hard until well blended. Reheat slowly (do not boil), combine with potato mixture, and stir in remaining fish. Heat about 5 minutes and remove bay leaves. Makes about 3 quarts or 6 two-cup servings. Top each serving with remaining butter.

Note: Chowder is best when made the day before serving, and refrigerated and slowly reheated for serving.

QUICK MANHATTAN CLAM CHOWDER

- 1 package Swiss recipe Garden Vegetable Soup Mix
- 1 10-ounce can whole baby clams with juice
- 1 pint canned tomatoes

Prepare Soup Mix as directed on the package. Add canned clams and juice, the canned tomatoes and about

1 teaspoon thyme, and reheat for serving. Makes about 2 quarts.

NEW ENGLAND CLAM CHOWDER

- 2 cans minced clams or 2 to 3 dozen fresh clams steamed and chopped
- ¼ to ½ pound salt pork, minced
- 1 onions, sliced
- 6 medium potatoes, cubed
- Liquor from clams
- 3 to 4 tablespoons flour
- 2 quarts hot milk
- ½ to 1 teaspoon salt
- Pepper to taste

Fry salt pork in a deep kettle until crisp. Add onions and fry lightly. Add potatoes and clam liquor and cook until potatoes are tender. Mix flour with a little cold water or cold milk to a smooth paste and add to the hot milk. Bring to boil and add salt and pepper. Combine the hot potato and milk mixtures and serve hot. Serves about 10.

CREAM OF MUSHROOM SOUP

- ½ pound mushrooms
- 2 tablespoons butter
- 2 tablespoons flour
- 1 teaspoon salt
- Dash of pepper
- 2 cups milk
- 2 cups chicken stock or broth

Wash mushrooms and chop fine. Sauté in the butter until tender. Blend in the flour, milk, and chicken broth. Bring to boil and boil 1 minute, stirring constantly. Season with salt and pepper and some paprika, if desired. Serves 6.

In place of chicken broth or stock, you may use 2 chicken bouillon cubes and 2 cups water. For a clear mushroom soup use 4 cups chicken broth in place of the combined milk and broth. Top each serving with whipped cream sprinkled with finely chopped pimiento, parsley, or paprika.

SPLIT PEA SOUP

- 1¼ cups quick cooking green split peas
- 1 quart boiling water
- ½ cup finely cut celery
- 1 medium onion finely diced
- Ham bone with ½ to 1 pound meat
- Salt and pepper

Combine peas, water, celery, onion, and ham bone and boil 10 minutes. Simmer gently about 45 minutes or until peas are soft. Remove ham bone from soup. Separate any meat from the bone, chop finely and return to soup. Season to taste with salt and pepper. If desired, rub pea mixture through a sieve before adding minced ham. Serves 4 to 6.

TURKEY CHOWDER

(U.S.D.A.)

- 2 slices bacon, chopped
- ¼ cup chopped onion
- 1 cup diced celery
- 2 cups cubed potatoes
- 1 cup diced, cooked turkey
- 2 cups turkey broth
- 1 cup whole kernel corn
- 2 tablespoons chopped parsley
- 2 tablespoons flour
- 1 cup milk
- Salt and pepper

Fry bacon over low heat until part of the fat has cooked out. Add onion and cook until soft and the bacon is brown. Cook celery, potatoes, and turkey in broth until vegetables are tender. Add corn, cooked bacon, onion, and parsley. Blend flour with the milk and stir into the mixture and cook until thickened with constant stirring. Season to taste. Serves 6.

ROADSIDE PLANTINGS

By NENETZIN R. WHITE

PLANTING highways not only makes them more attractive, but also safer, and in many instances saves money too. So what, you ask? Well, it is important to you, your community, and the whole area. Land values (including yours) go up; fewer accidents happen; less dust and snow sweep the area; there are fewer fires, and a sense of well being develops through the beauty of these plantings.

All of the northeastern states have snow problems. Each year it appears to me that these get worse, or am I just getting older? At any rate, we try to combat heavy drifting through the erection of snow fences, and this is a costly thing. They must be put up each fall, taken down in the spring, and replaced every few years. They do a fair job, but in real heavy snows, they topple over or get buried.

Snow drift control in Minnesota shows what a wonderful job a row of evergreens can do. Double and triple rows are now being used with excellent results. These are planted once, and with a minimum of care will solve the problem for many years.

It isn't always necessary to use evergreens either. Other trees and sturdy shrubs will give almost as much protection. In most of our regions the plantings are placed far enough to the west to drop the snow off the road. However, local winds and storm patterns vary, so study your own situation.

Monotony was the most glaring error discovered in our first super highways, as people were lulled to sleep. This condition has now been partially remedied through roadside and small plantings. You will notice today that wherever possible native plantings are saved and lanes of traffic are separated at frequent intervals. Tunnels and bridges are used so as not to cause great ugly scars on the landscape. Our interstate routes (or any others) can be just as attractive as parkways. By leaving native plantings and placing a few additional groups here and there

in the small areas, the effect is pleasant and ever changing.

Occasionally steep slopes exist or must be incurred, and grasses are frequently used to prevent erosion. As you know, it is dangerous to have a large section of a bank deposit itself on a roadway, and even if cleaned up at once, the area can be muddy and treacherous for many days. Grasses, of course, need mowing, so if the grade is two to one or steeper, the slopes should be planted with ground covers or woody shrubs for easy maintenance.

Exits and entrances from limited

access highways can use some of the choicer and more unusual plantings. Here is where your speed is slow, and you can enjoy the beauty of dogwoods, flowering crabs and many other delightful ornamentals. These group plantings also serve to show you exactly where to turn off.

I mentioned ground covers for bank plantings, and where used alone or combined with shrubs, they do an excellent job. Practically any planting is better for the addition of ground covers. It will be prettier, neater, and less of a fire hazard. Grasses frequently become dry and present a real fire danger, while ground covers remain green and do not encourage the spread of fires.

I hope each and every one of you will now promote roadside plantings,

and here are a few pitfalls to watch out for. Banks require close attention, some needing stoloniferous shrubs (where underground roots come up around the plant to make new plants) or special vines that root wherever they touch the soil. Also, ground covers must be placed where they are happy, for some will stand dry conditions, while others will not. Where you are using groups of ornamental trees or shrubs, you will want to be sure that their eventual height or spread won't block the drivers' vision. Deciduous trees with large leaves should be placed where wind will not blow their leaves on the road, for when wet they are almost as slippery as ice. And last, but not least, related plants belong together for the most effective and pleasing result.



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DWARF FRUIT TREES

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Also new grapes, berries, nut trees, blueberries. Color catalog FREE.

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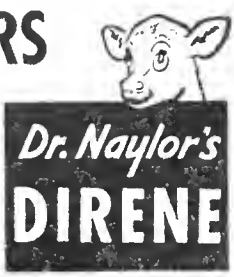
Mr. Dairyman — MASTITIS like CANCER MUST BE DETECTED IN ITS EARLY STAGES

USE these Fast Acting, inexpensive KO-EX-7 Brom Thymol Mastitis Detectors. Test regularly, you may save a good cow. Ask your Creamery, Druggist, Veterinarian. Or order direct. BEST by TEST. 50 for \$1. Accept no Substitutes. STERLING RESEARCH CORP. SIDWAY BLDG. (Sole Mfrs.) BUFFALO 3, N. Y.

CALF SCOURS

Stop Diarrhea with New DIRENE — Intestinal antiseptic with 3 way action—Control bacterial infections — Absorb harmful toxins—Coat, soothe, protect irritated stomach and intestinal lining. 14 oz. pkg. \$1.25 at dealers or postpaid.

H. W. NAYLOR CO., Morris 1, N. Y.



DWARF APPLES for New England usual varieties; ALSO more than 100 TASTY OLD apple varieties on East Malling IX and VII rootstocks. CONVERSE COMPANY NURSERY, Amherst, N. H.

Mt. Edith Cavell (Glacier of the Angel) in Jasper National Park. The scenery throughout the park is breathtaking.

EUROPE or ALASKA



EUROPE: Why not sail with us from New York City on April 30 aboard the Queen Mary? Our trip this time includes France, The Riviera, Italy, Austria, Bavaria, Switzerland, Germany, Holland, and England. Like every American Agriculturist tour, this one offers you a wonderful vacation under the most perfect, care-free conditions.

Our tour director makes all the travel arrangements in advance. The price of your ticket includes practically everything you can think of: transportation, the care of your luggage, all of your meals, tips, entrance fees for sightseeing and, of course, accommodations at first class hotels.

Since reservations are limited, it is important that you make yours at the earliest possible date. Why not fill in the coupon below and receive detailed information about this perfectly wonderful vacation tour.

ALASKA: If a trip to Alaska interests you more, fill out the same coupon, and you will receive a copy of the Alaska Tour itinerary. The dates for this trip are July 18 to August 9, more than three weeks of luxurious traveling by rail and steamship.

On our way westward, we will spend three nights at Jasper National Park in the heart of the spectacular Canadian Rockies. Sightseeing at Jasper will include Maligne Canyon, Mt. Edith Cavell (Glacier of the Angel), and Columbia Ice Field. From there we will go to Vancouver where we will board the luxurious SS Prince George for one of the most thrillingly beautiful cruises in the world—through the famous Inside Passage to the Land of the Midnight Sun, with stops at such colorful seaport towns as Prince Rupert, Ketchikan, Wrangell, Juneau, and Skagway.

We'll see giant stands of timber, snow-capped mountains that rise out of the sea, ageless glaciers, fishing villages, historic Gold Rush places—

and we'll have a wonderful time aboard our comfortable cruise ship, enjoying the delicious meals and entertainment features.

The homeward trip from the West Coast will be just as exciting. After spending the night in Victoria and visiting the famed Butchart's Gardens, we travel around Olympic National Park on our way to Seattle. We will ascend magnificent Mt. Rainier and drive along the famed Columbia River Highway.

Whichever one of these delightful tours you decide to take, we can assure you that you will enjoy every moment of it, and will get more than your money's worth. The great popularity of American Agriculturist tours is based on the fact that we and our competent tour directors, the Travel Service Bureau of Needham, Massachusetts, go all out to make them as perfect as possible.

EAST MEETS WEST!

(Continued from Page 29)

but the following story will more quickly give you a picture of some of the major values of ACWW.

A farmer-business man friend recently said to me, "I believe you women have in your hands a great power through ACWW." He continued, "When my wife started talking about ACWW, I sort of smiled. But our entire family life has become different because of my wife's interest in this organization. We now listen eagerly as she reads letters from her friends in Pakistan, Kenya, Sierra Leone, and other places on the far side of the world. We dress up in our Sunday best to have our pictures taken to send to them. We study their pictures and the pictures of their homes. A large globe has come into our house so we can identify the places where these friends live. We know many of them by their first names. Over our dinner table we wonder if little Indroni, over in Ceylon, has recovered from her operation.

"When I was growing up," he continued, "I never thought of people in foreign lands as real human beings whom I would ever know and care for. But because of ACWW, the world looks entirely different to my children. Just yesterday, my little girl said, 'I do wish Aroti could see my dolly.' Aroti lives in far off India."

A great American educator has written, "The ultimate weapon in the East-West conflict, it may well turn out, will not be anything as new as the intercontinental missile or the atomic submarine, but something as old as man—woman."

A. James Hall
American Agriculturist
Box 367-T
Ithaca, New York

Please send me without obligation
on my part the following tour
itineraries:

European Tour

(April 30-June 4) -----

Alaska Tour

(July 18-August 9) -----

Name _____

Address _____

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NEW FOR 1963 SENECA BUTTERBAR SUMMER SQUASH

A golden yellow hybrid producing quantities of long solid fruit — ideal for home and market.

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ONE EACH SIDE



BIG NO'S one inch high from 1 to 999
DU-AL tags set 35c, Snap-an Pliers \$4.95
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10,000 GALLONS BATTLESHIP GRAY
Exterior paint, suitable for metal or wood. Perfect condition, packed in five gallon steel cans. Cancellation on large Marine order. Price \$6.00 per 5-gallon can. Check with order.
COMMERCIAL CHEMICAL CO.
Rahway, New Jersey

ADDITIONAL CLASSIFIED ADS (Continued from Page 27)

MISCELLANEOUS

AMERICA'S LARGEST SONG and recording studio invites writers of words to submit material for possible use for songs and records. No obligation. Send material to Five Star Music Masters, 150 Beacon Bldg., Boston, Mass.

MAKE YOUR OWN WILL. Legal "Will Forms" complete ready to fill out with instructions. Two copies 50¢, five copies \$1.00. Pioneer, Lunell, Marietta 18, Ohio.

FIND INSPIRATION, health, contentment. Beautifully illustrated Guidebook tells how. \$1. Backwoods Journal, Paradox 16, New York.

SINGLE DRIVING HARNESS (1000 lb. horse) and cart or wagon suitable for small loads. Secondhand oak planks for stall flooring. Dr. Judith S. Kestenberg, 30 Soundview La., Sands Point, L. I. PO 7-4841.

PRINTING—complete service—low cost—letterheads, envelopes, tickets, posters, cards, labels. John Belcher, Falls Village, Conn.

FARMERS — RANCHERS — make your own lumber from your own trees—why pay high prices, when our one-man Sawmill makes you money. Turn your trees into lumber for your own needs—at far less cost—and make cash profit selling your surplus. Write today for free literature and complete information. Mills-Dept. AA, Box 107, Picasant Hill, Missouri.

AQUARIUM PLANTS, 3 rare assorted, Apongetum crispum, A. ulvaceum & N. Stellata \$2 PP. Acmen, 100A Shirley Avenue, Revere, Massachusetts.

HONEY

CLOVER—WILD FLOWER honey, 5 lb. pail PPD. 60 lb. can \$10.00 plus postage. Sold by ton. N. G. Schaefer, Box 88, Lagrangeville, New York.

SITUATION WANTED

SINGLE MAN, 34, wants job on Dairy Farm with single farmer 35 to 50. Good worker. Box 514-YE, American Agriculturist, Ithaca, New York.

STAMPS & COINS

OLD COINS BOUGHT. Illustrated catalog 25¢. Hutchinson's, Box 6256, Philadelphia, Penna. BARGAIN INVESTMENT. Complete set Lincoln 1941-1962 PDS in Whitman folder. Coins very fine, 1943 brilliant. \$4.00 Postpaid. You must be satisfied or full refund in 3 days. Elgan Enterprises, P. O. Box 127, Herkimer, New York.

327 WORLDWIDE DIFFERENT 25¢. Bargain approvals. Niagara Stamps, St. Catharines 211, Ontario.

25 LARGE AMERICAN Commemoratives 10¢. Accompanying approvals. Free perforation gauge. Linstamps, St. Catharines 111, Ontario. 103 DIVERSIFIED BRITISH Commonwealth 10¢. Approvals included. Crown Stamps, Virgil, 611, Ontario.

EARTHWORMS

FREE PICTURE FOLDER. 'How to Make \$3,000 Yearly, Sparetime, Raising Earthworms!' Oakhaven-5, Cedar Hill, Texas.

YOU WILL BE AMAZED

at the response you will get in answer to your classified advertisement in American Agriculturist. See top of the Subscribers' Exchange Page for details.

NEWS and VIEWS from New York and Pennsylvania

Meetings — The New York State Horticultural Society and the Empire State Potato Club met in Rochester January 15-17. Featured speakers were Ezra Benson, former Secretary of Agriculture and Professor Freeman Howlett, head of the Horticultural Department at Ohio State University.

Ed Fallon, Manager of G.L.F., spoke at the Kingston meeting of the Horticultural Society, held January 22-24, as did Professor Marshall Ritter of Pennsylvania State University and Professor Donald Dewey of Michigan State.

Survey — A summary of income statements for 1961 of 51 participating companies of the New York State Milk Distributors Inc. indicates net sales of \$114,164.928, 72 percent used for advertising, and a net profit (before federal income taxes) of .71 percent.

Elected — Gilbert C. Smith of Penn Yan was elected president of the New York Association of County Agricultural Agents for 1963, succeeding William G. Howe of Ellicottville. Other officers are: Russell C. Hodnett, vice president; Ernest J. Cole, secretary and treasurer.

Star Farmer — Pennsylvania's Star Dairy Farmer (FFA) is 18-year-old Charles William Lundy, Wysox. The degree carries a \$100 prize from the National FFA Foundation, Inc.

Affiliation — Two of the Northeast's largest dairy farmer cooperatives affiliated recently, the Dairymen's League Cooperative Association and the United Milk Producers Cooperative Association of New Jersey. UMP is the seventh cooperative to affiliate with the League, and brings the total affiliate membership to 1,800.

Ag Society — The annual meeting of the New York State Agricultural Society was held January 16. Governor Nelson Rockefeller was principal speaker at the State Farm Products Dinner, where four Century Farm Families were cited, as follows: The Simons Farm, Smyrna, Chenango County, Kenneth and Ralph Simons, owners; the Morris Farm, Alpine, Schuyler County, William H. Morris, Charles Morris, and Donald Gaige, owners; The Johnson Farm, St. Johnsville, Fulton County, Mr. and

Mrs. Ross Johnson and Mr. and Mrs. Kenneth Johnson, owners; and the Banker Farm, Plattsburgh, Clinton County, Walter Banker, owner. Century farms must have been in the families more than a century, and the recipients and their forebears must have distinguished themselves as community leaders and have made outstanding contributions to agriculture.

Outstanding — Professor Henry M. Munger, head of the vegetable crops department and professor of plant breeding at Cornell University, was titled "Vegetable Man of the Year" by the National Vegetable Growers Association of America at their recent annual meeting.

Honored — Clarence Denton, county agricultural agent in Delaware County for 32 years, was honored at a banquet in Walton and presented a sum of money from his many friends and admirers.

Calf Awards — For the tenth consecutive year, the Purebred Dairy Cattle Association, cooperating with the various State dairy breed associations, will award six calves to boys and girls who plan to become breeders of registered purebred cattle. Those who apply will also be considered for a free artificial breeding certificate provided by the New York Artificial Breeders' Cooperative, Ithaca, N. Y. Application forms can be had from vocational agriculture teachers, county 4-H Club agents, and from Professor H. A. Willman, Morrison Hall, Cornell University, Ithaca, N. Y.

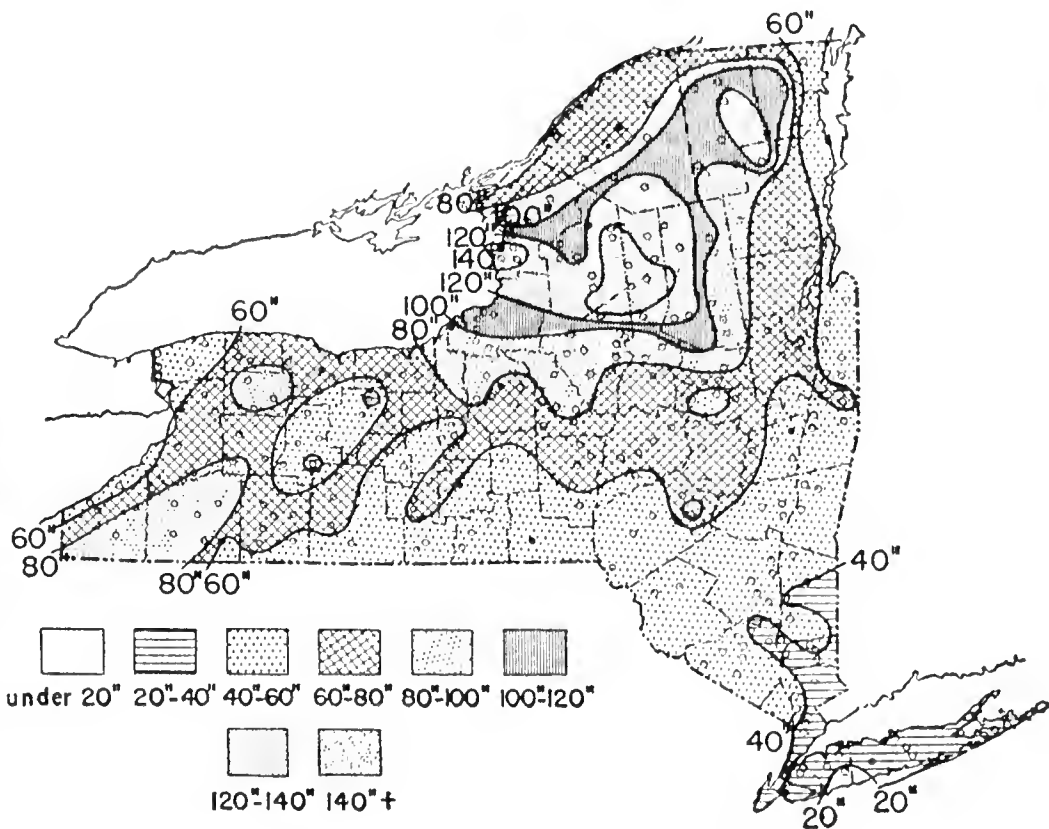
Plans — If you are feeling cramped in the old sap house, or if syrup and sugar making are taking too much time, write to Agricultural Engineering Extension, Riley-Robb Hall, Cornell University, Ithaca, N.Y. for Plan 794, entitled "Maple Sugar House."

Pennsylvania Farm Show — Among the many persons honored at the Farm Show were six farmers who have excelled in farm programs, as citizens, and in professional leadership, and who were winners of the Master Farmer Award for 1962. They were: Mark Anthony, Rochester Mills; Taylor A. Doeblar, Jersey Shore; Willard H. Kimmel, Schenectady; Donald R. Stephens, Belle Vernon; Earl W. Strite, Harrisburg; and Nelson E. Witmer, Dalmatia.

Robert L. Gross, Manchester, was named corn champion, with a yield of 207.5 bushels per acre; Edward O. Snook, Loganton, was proclaimed State Star Farmer.

Annual Meeting — The New York Beef Cattlemen's Association held its annual meeting and banquet on January 10. All officers were re-elected: president, Earl Angell, Durhamville; vice president, Harold Brown, Brant Lake; secretary, M. D. Lacy, Ithaca; and treasurer, Roger Bradley, King Ferry.

At the banquet, three persons were honored: Lorna Stoyall, for her outstanding work in 4-H with beef cattle; George Brown, Machias, for having "grand champion lot of feeder calves at the feeder calf sales held in the State"; and Bob Martin was named "New York Beef Cattleman of the Year" for 40 years of outstanding work in the beef industry of the State. Bob is Division Manager for Empire Livestock Marketing Cooperative at the Lancaster and Buffalo Producers market.



What's Your Mean Annual Snowfall?

Depends on where you live.

In the "snow belt" east of Lake Ontario, you can expect 140 inches or more! In southeastern New York 20 to 40 inches.

To Cornell meteorologists who compiled the map, the "mean" is the mid-point of many years' records. To others, any amount of snow is just plain mean!

For everybody, official forecasts of amount of snow and other weather factors come to you on WEATHER ROUNDUP at 6:25 and 7:15 A.M., 12:15 and 6:15 P.M. over these stations:

FM STATIONS

Auburn	WMBO-FM	96.1 mc.
Binghamton	WKOP-FM	99.1 mc.
Bristol Center-Rochester	WMIV-FM	95.1 mc.
Cherry Valley-Albany	WJIV-FM	101.9 mc.
DeRuyter-Syracuse	WOIV-FM	105.1 mc.
Hornell	WWHG-FM	105.3 mc.
Ithaca-Elmira	WEIV-FM	103.7 mc.
Jamestown	WJTN-FM	93.3 mc.
Niagara Falls-Buffalo	WHLA-FM	98.5 mc.
Olean	WHDL-FM	95.7 mc.
Wethersfield-Buffalo	WBIV-FM	107.7 mc.

AM STATIONS

Auburn	WMBO	1340 kc.	Remsen-Utica	WREM	1480 kc.
Binghamton	WKOP	1290 kc.	Rochester	WHEC	1460 kc.
Boonville	WBRV	900 kc.	Salamanca	WGGO	1590 kc.
Dunkirk	WDOE	1410 kc.	Saratoga		
Elmira	WENY	1230 kc.	Springs	WSPN	900 kc.
Glens Falls	WSET	1410 kc.	Sayre, Pa.	WATS	960 kc.
Hornell	WWHG	1320 kc.	Schenectady	WGY	810 kc.
Ithaca	WTOK	1470 kc.	Scranton, Pa.	WEJL	630 kc.
Jamestown	WJTN	1240 kc.	Syracuse	WHEN	620 kc.
Niagara Falls	WHLA	1270 kc.	Syracuse	WOLF	1490 kc.
Olean	WHDL	1450 kc.	Walton	WDLA	1270 kc.

Northeast Radio Network



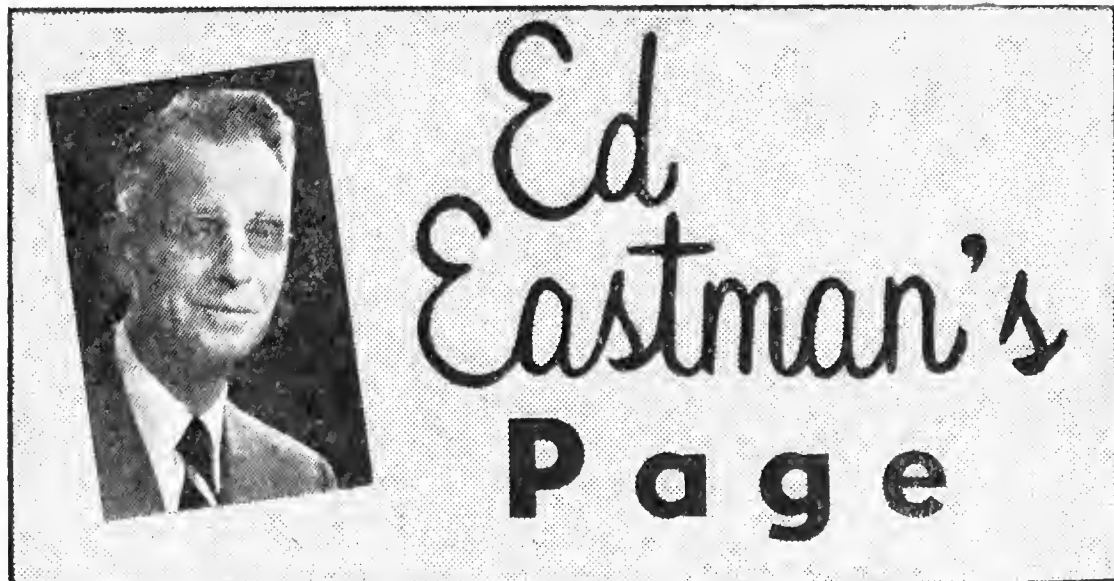
Brought to you at 7:15 A.M. by the
Cooperative G.L.F. Exchange, Inc.

HIGHER HERD AVERAGE?

Get feeding, breeding and management recommendations on low-cost monthly progress reports. Ask your local DHIA supervisor for the "Go Electronic" folder or write:
NEW YORK DAIRY HERD IMPROVEMENT COOPERATIVE
Morrison Hall • Ithaca, N. Y.

The High & Low Unloading BESTLAND HYDRAULIC ROCK PICKERS!

PICK! LOAD! DUMP!
Tons and tons a day of small to 800 lb. rocks and never leave tractor seat—8 models in world wide use. 2000-4000 lb. hopper capacities — 16 years field proved—true contour rock picking with front caster wheels.
Write: **VIEL MFG. CO., Box 632**
BILLINGS, MONTANA



The First Sign of Spring

THE SEED catalogs are here! As I leaf them over, I start dreaming. Gone are the barren fields covered by the deep snow. Gone is the bitter wind howling down the hills. In their place is the soft warm sun and the gentle air of our beautiful spring, summer, and fall in this northland of ours. All the earth is covered with God's green carpet of grass into which is artistically woven the designs of woods, growing crops, vegetables of every kind and description, contrasted with the infinite colors of the flowers of field and garden.

No one who has not had the experience of living the year around through the rolling seasons of our North could look out of a window here now and realize even with the wildest stretch of the imagination—just how this same country will look when June comes.

SENSATIONAL NONSENSE

A WOMAN WRITER, whom I will neither dignify nor advertise by even mentioning her name, has written a book that is having a big sale against the use of and the dangers of farm chemicals. Because this book will give a wrong impression to thousands of consumers, it will do great damage not only to farmers but especially to consumers themselves.

Without the constant fight made by farmers and the manufacturers of chemicals against insects and disease, all of us would soon be without food. It would take only a very few short years for insects to take over completely. Even with everything that is being done, insects are on the increase.

I can remember that when I was a very small boy there were only a few potato bugs; they were called Colorado beetles then, because they came from the West. I can remember also when it was possible to grow very good apples in the family orchard without spraying.

The danger from farm chemicals is vastly over-emphasized. The Southern Planter reports the number of deaths due to pesticides in one year in applying chemicals as 89; aspirin killed 150.

"The number of lives saved by farm chemicals in controlling obnoxious insects and weeds," says the "Planter," "and in producing more and better food, would be difficult to estimate. DDT alone is credited with saving 5 million lives and preventing 100 million illnesses due to insect carriers.

"In reality, pesticides—properly

applied—present no threat to human health. The agricultural chemicals industry, the United States Department of Agriculture, and the individual states are spending millions of dollars annually in testing, proving, and checking the safety of pesticides. The chemicals are not approved for public use until their safety is assured."

NAILED

THERE IS A lot of dangerous nonsense in television, radio, and newspaper advertising about the danger of animal fats causing heart attacks by building up cholesterol in the lining of blood vessels.

The American Medical Association has just issued an emphatic statement nailing the anti-cholesterol food fad as a wasted and dangerous effort.

The American Medical Association report said further:

"Dieters who believe they can cut down their blood cholesterol without medical supervision are in for a rude awakening. It can't be done. It could even be dangerous to try.

"Willy-nilly substitution of a few food items without overall control of the diet accomplishes little if anything in reducing cholesterol.

"What is more important, the elimination of certain foods of proven nutritional value could be detrimental to health."

So, before listening to selfish,

misleading and harmful advertising, and before eliminating from your diet some valuable food like butter, whole milk, cream or meat, for heaven's sake—or at least for your own sake—consult your doctor!

TWO UNITS OR THREE?

A STUDY MADE with 160 dairymen in Minnesota shows that there is little to be gained with milking machines with three units over two.

The study also emphasized again what dairymen know, that it is very important to keep milking machines clean and in first class condition; to wash and massage the cow's udder, and to draw about three streams from each teat into a strip cup before putting the cups on.

Many dairymen try to do other chores while milking. This is a mistake, for the cows should be closely watched, machine stripped, and the cups removed as soon as the milk stops coming.

AN APPLE FOR YOUR TEETH

SOME BRITISH scientists did some interesting experiments to find the best way to clean teeth.

They tried a new tooth-cleaning tablet; toothbrush and water; rinsing the mouth with water; and chewing a quarter of a firm apple.

You've guessed it — the apple won! It did a much better job than any of the other methods.

LOOKING UP

FARMING, says the United States Department of Agriculture, is improving. Farmers' income in 1961 was \$1.1 billion higher than in 1960, the highest net income since 1953.

Preliminary figures say that farm income in 1962 will at least equal that of 1961.

Net income per farm in 1961 rose 13½%. Surplus grain stocks have been reduced and farmers are producing more in line with what is needed. That is good. Farmers will never prosper when the basic law of supply and demand is constantly violated. Government programs often have done more harm than good by breaking this natural law.

GERANIUMS IN THE WINDOW

IN A LITTLE farmhouse beside the road between the cities of Ithaca and Cortland, there used to live an elderly couple. In the front of the house, facing the road, was a big bay window completely filled with geraniums in blossom. The old folks are gone, but the memory of those bright, cheerful flowers on a cold winter day still linger.

One time, Belle and I stopped to visit with the old couple, and we found them just as nice and cheerful as their flowers. The lady reminded me of my own mother, who always had geraniums and other house plants like begonias blossoming in the bay window throughout the winter.

Why couldn't you have a window full of flowers? Maybe also in a few weeks you can grow young plants that can later be transplanted to your garden.

It's fun to grow things, and they add a bright spot to the dark winter days and to our own lives.

TAX TIME AGAIN

MOST OF US are struggling again to get money to pay our taxes, and not the least of our troubles is making out the income tax reports.

As we worry about these heavy taxes, let's resolve all over again that we will write or otherwise contact our national, state and local government representatives demanding more economy and less spending by government.

Let's cut some of the foreign aid to countries who take our money and then laugh at or criticize us. Let's demand less socialistic domestic schemes for spending billions to help people, many of whom should do more to help themselves.

If we don't cut spending, we are headed for national bankruptcy. Then where will we all be? And what about our children, who will have to pay the government debt we are piling up? The national debt now amounts to \$1,500 for every man, woman and child in the United States.

EASTMAN'S CHESTNUT

IF I HAD my life to live over, I think I would keep a diary. Wouldn't it be wonderful for any of us to have a record of all the interesting things that have happened to us and to our friends?

But, even if I had started one, probably I would not have kept it up to date. I would be like the college student to whom we once rented a room. After he had gone, we found a diary which he had received for Christmas. He had started out bravely, telling at some length about his daily activities and the wonderful times he had dating the girls. Gradually, the daily records got shorter and shorter, and finally ended after a couple of weeks with the entry: "Rocks and Shoals."

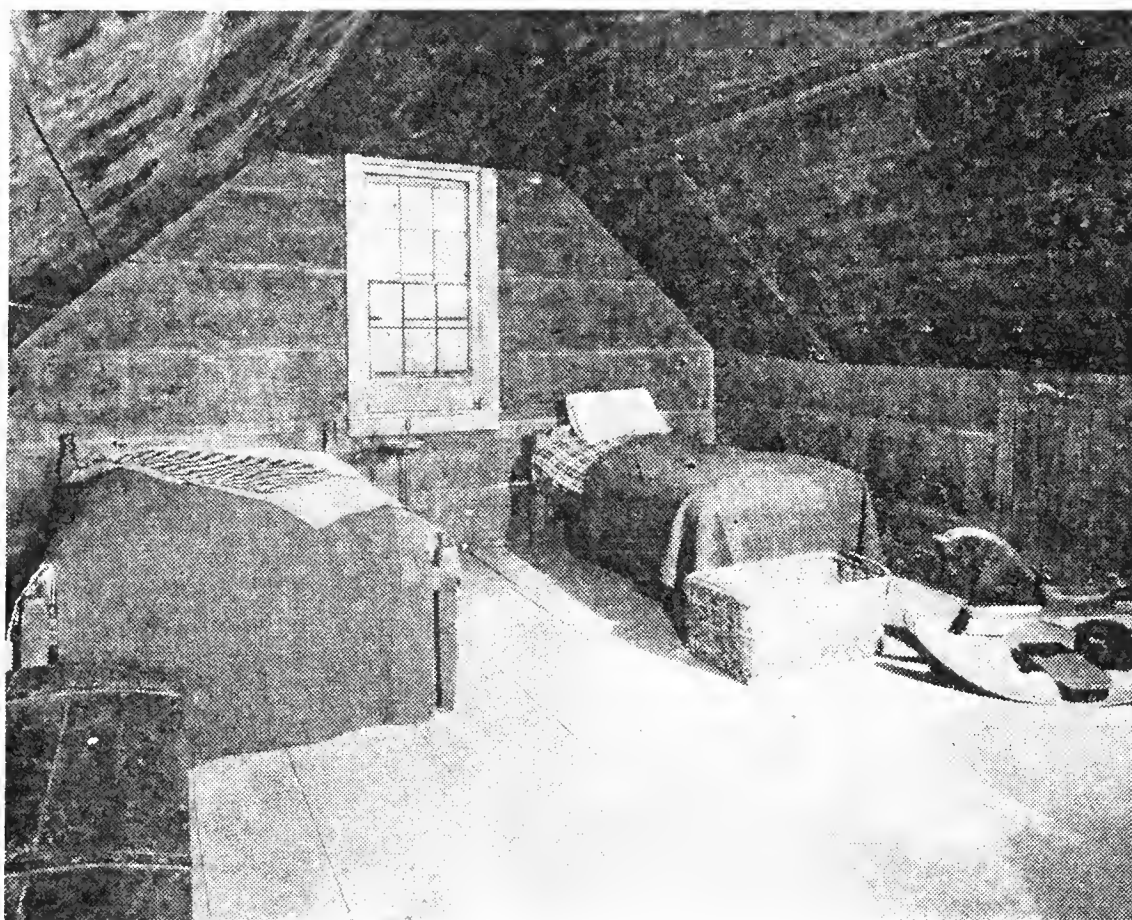
Then there was a small boy who received a diary and an air rifle for Christmas. He wrote in the diary as follows:

January 1: Snowed. Had to stay in.

January 2: Snowed.

January 3: Snowed.

January 4: Shot Grandma!



An old-time attic bedroom—hot in summer, bitter cold in winter. I've slept in a bedroom, not quite so plain as this, where the snow covered the floor near the window and where I had to grab my clothes and rush to dress around the "settin' " room stove. Are we going soft?

—Courtesy New York State Historical Assn.

Keep 'em Open

SORE TEATS • SCAB TEATS • BRUISED TEATS

KEEP 'EM MILKING WITH THIS 2-WAY ACTION

Dr. Naylor Dilators promote natural milking and normal healing because they ACT TWO WAYS:


- 1. ACT MECHANICALLY**... keep end of teat open in natural shape to maintain free milk flow. Stay in large or small teats.
- 2. ACT MEDICALLY**... Sulfathiazole in each Dilator is released in the teat for prolonged antiseptic action directly at site of trouble.

EASY TO USE... just keep a Dr. Naylor Dilator in teat between milkings until teat milks free by hand. At drug and farm stores or postpaid.

H.W. NAYLOR CO., MORRIS 1, N.Y.
Large pkg. \$1.00
Trial pkg. 50¢




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Order now
build early
save money

WRITE TODAY FOR COMPLETE INFORMATION.



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Race Rd. and Pulaski Hwy. Baltimore, Md.
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BRITEX CORP. Manufacturing Chemists
BOSTON, MASSACHUSETTS

Service Bureau

(Write to Box 367, Ithaca, N. Y.)

SELLING HAY

With the shortage of roughage in many sections hay buyers are busy in hay surplus areas. New York's Agriculture Commissioner Don J. Wickham has cautioned all farmers selling hay to deal only with licensed and bonded dealers or with individuals who are buying feed for their own animals.

Legitimate hay dealers are licensed by the Department of Agriculture and Markets; their bonds guarantee payment to the persons with whom they do business. Any farmer who is not sure that he is doing business with a qualified dealer should call Albany GR4-4490 (area code 518) for immediate information on the dealer's certification. In the case of farmers buying feed for their own animals, Wickham warns that the seller will do well to make certain that the buyer is indeed who he represents himself to be.

NO BARGAIN!

A warning has gone out to housewives and restaurant owners to be on guard against peddlers wearing high bib overalls who offer "Country Cured Hickory Smoked Hams" for sale at bargain prices.

Many of these so-called hams are reported to be actually shoulders, and some of them are improperly cured. If you come up against some of these peddlers, get the license number and send it, with a description of the individual or individuals, to the Department of Agriculture in your State.

CAN YOU HELP?

Mrs. W. H. Montgomery, R.D. 1, Grove City, Pa., would like to know where to find a copy of "Let the Hurricane Roar," or even the name of the author.

Mrs. George Stone, R. 1, Canton, N. Y. would like the words to the poem, "Out Sleighing with Sophie."

Will the lady who ordered jersey (silk or nylon) for hooked rugs please send her name and address to Pieces, Box 373, Haines Falls, N. Y.

Mrs. John W. Kidney, 2365 Hosmer Road, Appleton, New York, would appreciate information as to where to get instructions for playing the "Ukelin."

Mr. Don Metcalf, R.D. 2, Dugway Road, Clinton, N. Y., would like the song of which the following is a portion: "Bluebells I gather, Take me and be true, For when I'm a man, My plan will be to marry you."

ADDRESSES WANTED:

Any descendants of Leonard Robinson and Nathaniel Tyler Robinson, who were born in Plymouth, Vt., the sons of Zelotes Robinson.

Lorraine Murry (or Lathrop), daughter of Arthur Murry, whose last known address was R.D. 1, Elkland, Pa.

Mrs. Francis Murphy, who had two sons, James and William, and lived in Father Baker's housing project in Lackawanna, N. Y. Later she moved to Springville, N. Y.

"I almost didn't renew"



says James Smith of Freetown, N. Y. "Now I realize that I couldn't ask for a more prompt and reliable company to do business with."

While loading logs one slipped loose, it struck Mr. Smith's shoulder, rolled down his side then landed with crushing force on his foot.

Loss of foot and medical expense benefits totalling \$2040.00 were delivered by agent, Ray Ennis. Carrying two policies, Mr. Smith paid \$25 a year for the protection.

Some Other Benefits Paid

Henry Basch, Webster, N. Y.	100.00	Fern Petty, Canton, N. Y.	202.86
Fell on ice—injured back		Fell from ladder—injured heel & back	
Gerald J. Labarbera, Mt. Morris, N. Y. .	463.05	Louise L. Sulem, Sloansville, N. Y.	346.73
Auto accident—fractured ankle, bruises		Auto accident—injured neck, knee, hand	
Donald Palmatier, Wellsville, N. Y.	481.07	Vicky Ames, Prattsburg, N. Y.	330.82
Fell off steps—fractured heel bone		Fell from tree—fractured wrist & pelvis	
Merton E. J. Smith, Delevan, N. Y.	272.50	Frank Zaleski, Riverhead, L. I., N. Y.	110.00
Kicked by cow—fractured leg		Fell—injured back and neck	
G. Stanley Conklin, Moravia, N. Y.	1291.28	Bennie Pawluczuk, Cutchogue, N. Y.	145.72
Piece of metal hit head—injured eye		Machine fell on foot—injured foot	
Carl Grisanti, Silver Creek, N. Y.	592.50	Adam Pawloski, Jamesport, N. Y.	111.00
Auto accident—fractured rib, injured back & side		Hit by pipe—bruised lip, broken teeth	
Ira N. Parke, VanEtten, N. Y.	298.56	Grover C. Adams, East Hampton, N. Y.	202.86
Hit by plank—injured shoulder		Auto accident—injured chest & legs	
Ellen Connors, Afton, N. Y.	202.86	Floyd Darling, Port Jefferson, N. Y.	261.28
Dragged by heifer—injured back & leg		Auto accident—injured shoulder, arm, elbow	
Walter Hess, Marathon, N. Y.	296.58	Robert James Thompson, Owego, N. Y.	923.69
Kicked by cow—injured leg and ankle		Pinched against post by heifer—injuries	
Thomas Maulik, Margaretville, N. Y.	1125.68	Roy Ferenbaugh, Freeville, N. Y.	178.00
Auto accident—fractured kneecap, wrist		Fell—injured back	
Jerry Snyder, Moira, N. Y.	107.15	Samuel Tessier, Kerhonkson, N. Y.	275.96
Struck by car—broken collarbone		Bumped leg—cut knee—injured thigh	
Robert F. Leslie, Broadalbin, N. Y.	135.35	David S. Marion, Marion, N. Y.	188.58
Fell cleaning stables—injured back		Auto accident—injured head, broke arm	
Paul Hanley, Batavia, N. Y.	1069.00	Waller Dominick, Arcade, N. Y.	133.00
Fell on ice—fractured ribs, injured chest & arm		Broke window of burning barn—cut hand & forearm	
Helen Slaughter, Ilion, N. Y.	531.60	Clarence Smith, Dundee, N. Y.	107.14
Auto accident—injured mouth, chin		Tractor accident—injured shoulder	
Wendell C. Eggleston, Theresa, N. Y.	182.85	Dale Stermer, Tioga, Pa.	228.64
Auto accident—injured back		Auto accident—injured head, ears	
Martha Beyer, Lowville, N. Y.	1285.00	Walter S. Cole, Sr., Snedekerville, Pa. ...	586.47
Fractured hip—fell on ice		Kicked by cow—fractured ribs	
Erwin Lehman, Castorland, N. Y.	319.29	Robert Finch, Nelson, Pa.	672.90
Cow stepped on foot—bruised and fractured toe		Jack slipped—car fell—head injuries	
Karl S. Klemme, Sprakers, N. Y.	120.00	John Denning, Lawrenceville, Pa.	102.67
Stepped on by cow—injured toe		Hit by side of hay—injured neck & back	
John Bayliss, Cassville, N. Y.	201.18	Joseph Holt, Glenwood, N. J.	321.82
Auto accident—cut face, injured teeth		Tractor turned over—fractured rib, injuries	
Effie M. Becker, Ionia, N. Y.	612.00	Steve Milnar, Phillipsburg, N. J.	683.17
Fell on icy steps—injuries & broken arm		Caught in field chopper—injured fingers	
John Joy, Albion, N. Y.	178.18	Anna Emmons, Freehold, N. J.	306.50
Fell off farm truck—fractured wrist, injuries		Fell—fractured right heel	
Raymond D. Baird, Williamstown, N. Y.	203.57	Roland Armstrong, Columbus, N. J.	293.95
Knocked down by bull—injured chest, ribs, back		Plowing snow, hit bump—injured side	
Sylvia M. Toth, Laurens, N. Y.	203.14	Jennie Patane, Swedesboro, N. J.	279.00
Kicked by cow—fractured arm		Fell—fractured arm & rib	
Donald G. Alguire, DeKalb Junction, N.Y.	432.08	Salvatore De Pinto, Imlaystown, N. J.	110.00
Thrashing oats—injured knee		Shipped off truck—injured back	

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(In New York State)

THE NORTH AMERICAN COMPANY

FOR LIFE, ACCIDENT & HEALTH INSURANCE (In Other States)

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SAVINGS BANK BUILDING

ITHACA, N. Y.

WE'LL GIVE YOU \$135⁰⁰ CASH... to pay your '63 tractor fuel bill

(and don't be surprised if you have some left over for '64)



We want to make a point: that the Case 3-plow 430 and the Case 3-4 plow 530 Dynaclonic diesel tractors cost less to operate than any comparable tractors on earth.

Yes, both already are world's diesel fuel economy champions in their classes. And here's your chance to make us *prove* our economy claims—on free fuel!

If you purchase a new Case 430 or 530 farm tractor* between January 15 and Feb. 28, 1963, we'll send you our check for \$135 payable in cash. How much No. 2 diesel fuel can you buy locally for \$135? Figuring a national tank wagon average price per gallon of 15.9¢, that's 850 gallons.

In a Case Dynaclonic diesel, that's much more diesel fuel than you'll likely use in a year's work—with a healthy amount left over for next year!

Here's why we're so sure: in Dynaclonic design, each fuel charge is packed into a swirling tornado. It achieves the "maximum turbulence" engineers seek—the complete blending of fuel and air essential to complete combustion.

Result: more pounds of thrust—*up to 13,700 pounds behind every piston stroke!* More work-power from every ounce of fuel.

Team this combustion efficiency with Dynaclonic's long-stroke, high-torque design, and you'll see where its extra power comes from—why it can *pull through* where high speed automotive type engines begin to labor and stall.

Get the details—and a demonstration—from your Case dealer. *And do it soon.* Remember, the free fuel offer is good only through Feb. 28.

**PREFER GASOLINE TO DIESEL?*

The same \$135 cash bonus applies. Gasoline or diesel, you purchase the fuel at your convenience and from the local supplier of your choice.

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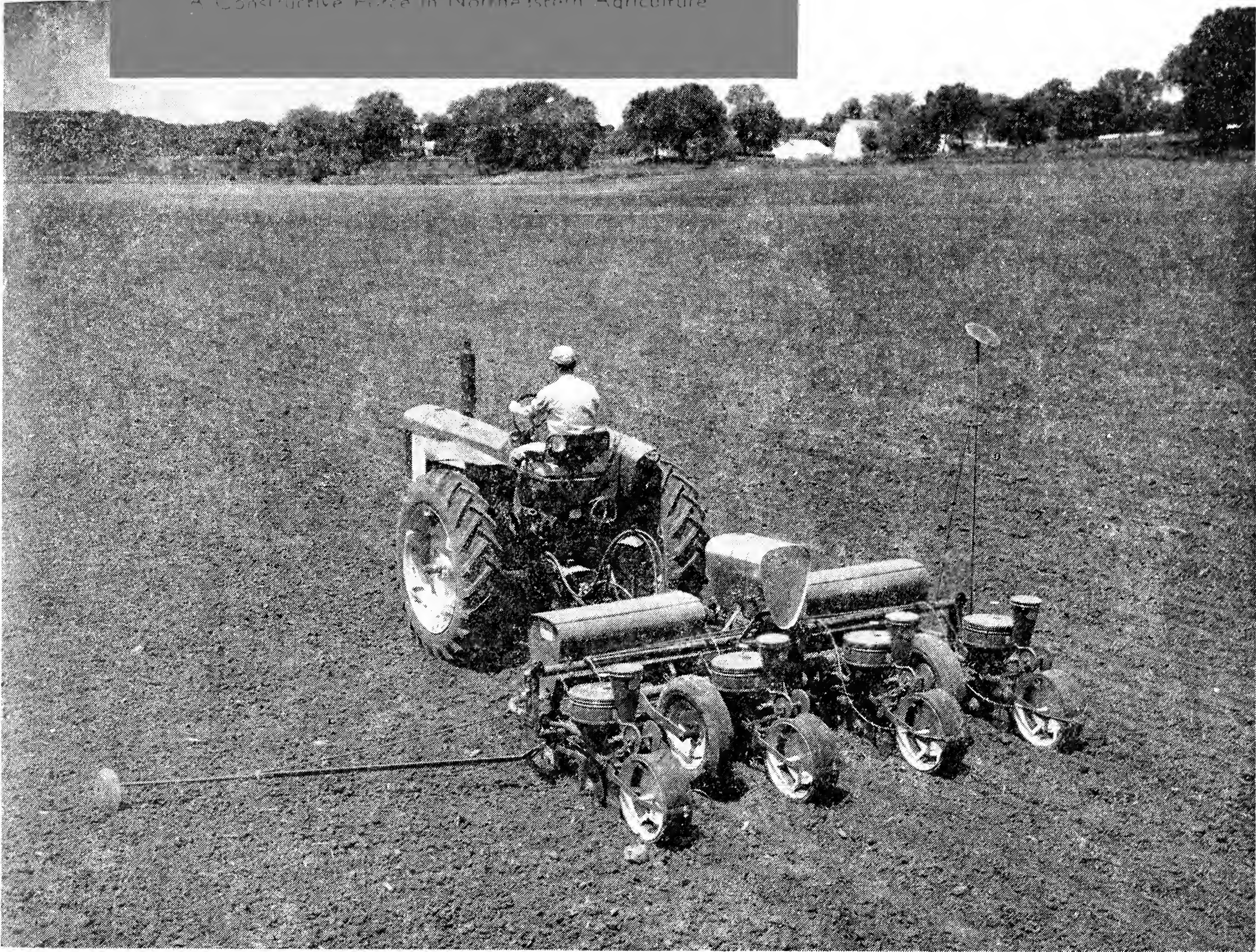


Founded 1842

AMERICAN AGRICULTURIST

A Constructive Force in Northeastern Agriculture

MARCH 1963



Think **BIG** About Corn

Here's the latest on how to grow corn
you can brag about.

By Ralph Krenzin*

On deep, well-drained soils, and on much of the valley land of the Northeast, this would mean three to five or more years in corn followed by a year or two in a hay crop, then back to corn. On the more level and better-drained acres of hill land, it will mean one or two years of corn, followed by three to five years in hay crops. This means a planned sequence of crops for **each field** and not a set rotation for the entire farm.

The use of one or two improved production practices does not make a successful corn crop. As with a log chain, the combined strength of all the production practice "links" work together to do the job. A weakness in any one production practice lowers the chance

(Continued on Page 36)

IN THIS ISSUE:	Plow Adjustment	6	Plowshare Facing	18
	Western Farming	10	Grange Position On Milk	24
	Country Banker	12	Prize Winning Flowers	40

TONS OF GREEN weight forage per acre is no longer a realistic way of measuring yields of corn silage. Today's choice of crop rotation—and the decision to produce home-grown feed or to purchase extra feed — is really a question of finding the cheapest sources of Total Digestible Nutrients. Where corn is adapted, it can produce twice as many tons of TDN per acre as a crop of good hay. Total Digestible Nutrients from both corn silage and good hay can usually be produced at about half the cost per unit of TDN as compared to prepared dairy feed.

Many northeastern dairy farmers are not producing TDN up to the full capacity of their soil. This situation can be improved, of course, by increasing the general level of crop yields —and by stepping up the use of corn in the rotation. The possibilities of high TDN yield from corn silage points in the direction of growing corn just as often as possible where it is adapted.

* Extension Agronomist, Cornell University

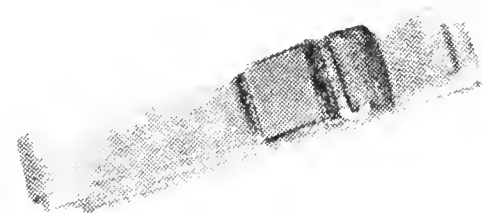
THIRD ANNUAL GLF MARCH of VALUES

FOR THAT SAFARI INTO THE NORTH WOODS!

THESE GRRRRREAT VALUES MAKE YOUR PURSE PURRRR

A sale!! worth roaring about. For 16 days you will find dozens of items on sale at GLF. The March of Values roars in on March 6th, and will still be roaring on March 23rd, the last day of the sale.

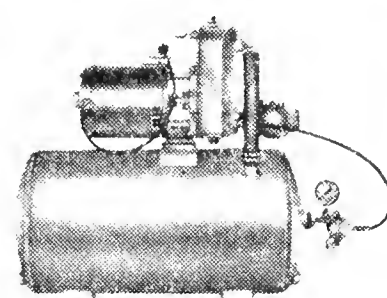
Don't wait. They'll go fast. And many of the items are on "first-come, first-serve" basis. When they're gone, we can't replace them. Because you see, we've bought all of these products on a one-shot deal, at lowest possible prices...so we can pass the savings on to you. GLF's LION'S SHARE Specials (the lion's share goes to you). Cooperative GLF Exchange, Inc.



SAFETY SEAT BELTS

All nylon belt in six colors. Fits all cars. Easily installed. This 6,000 lb. test belt has a safe metal-to-metal buckle. Exceeds Federal, State and SAE specifications.

REGULARLY \$7.95 EA.
LION'S SHARE PRICE \$3.19 EA.
...WHILE THEY LAST



JACUZZI SHALLOW-WELL PUMP

Perfect for camp, cottage, or field installation, this completely self-contained water system (except for the pipe) is all above ground. Works equally well in lake, cistern, or other source. Big capacity with 1/2 h.p. motor. Inexpensive kit permits easy conversion to deep well jet up to 90 ft.

REGULARLY \$146.00
LION'S SHARE PRICE \$91.95
...WHILE THEY LAST



HOME GARDEN SPECIAL

regularly \$124.95

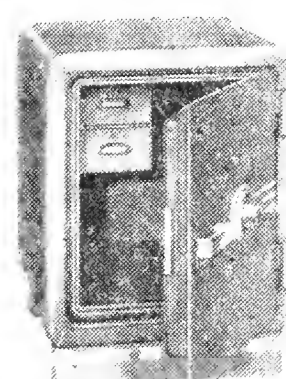
LION'S SHARE PRICE

\$94.95

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20" SQUIRE APPLGATE TILLER

A bear for work. Tills up to 9" deep with special Hahn tines that dig in and pulverize better. 3 h.p. Briggs & Stratton engine. Easy-Spin recoil starter. Easy to handle because 93% of weight is concentrated on the tines. Power to spare with the 35-in-1 gear ratio.



The World's Best Selling Personal Safe

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Normally sells for less than other safes of comparable quality...now marked way below normal price. A small, small price to pay for protection against fire and theft...for homes, small businesses. Prime steel...heavy, all-steel construction on interiors and exterior for fire protection. Built-in combination lock. Weight: 240 lb.

REGULARLY \$89.95
LION'S SHARE PRICE \$69.95

...WHILE THEY LAST

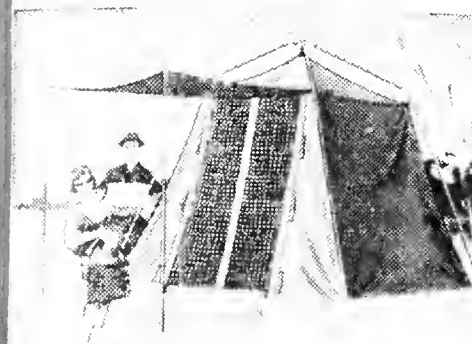
9' x 9' UMBRELLA TENT

REGULARLY \$57.75

LION'S SHARE PRICE

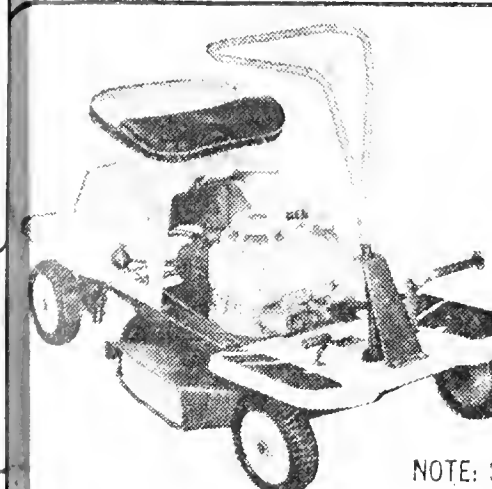
\$24.95

...WHILE THEY LAST



Sleeps four adults. Sewed-in floor. Nylon screen window. Nylon screened zipper door. Tubular, aluminum (for strength and light weight) frame. Hardwood stakes. Put style into your camping this year. Take advantage of this less-than-half price bargain.

NOTE: The prices on these exceptionally fine pieces of camping equipment are cut almost in half! We were lucky to get a really great buy on a large number of them, and are as proud of the price we are offering them at, and of the quality of the items, as anything we've ever sold. These bargains won't be here long. So come in early for yours.

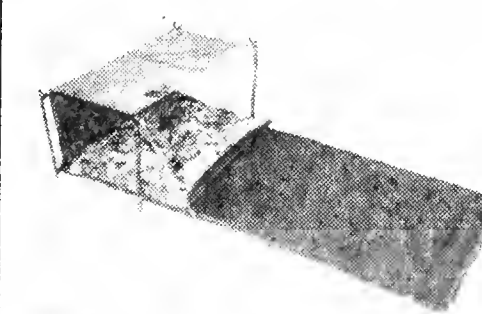


SQUIRE APPLGATE DELUXE 24" RIDING MOWER Constructed of heavy gauge reinforced steel, this 3 h.p. riding mower has 4 cutting heights. Briggs & Stratton motor, recoil starter, comfortable all-steel padded seat, and many other features make it the best mower for your money. Gear type...single speed...forward, neutral and reverse.

REGULARLY \$199.95
LION'S SHARE PRICE \$149.95

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NOTE: \$10. deposit holds mower 'til June 1, 1963 at sale price



LINED SLEEPING BAG

REGULARLY \$18.95

LION'S SHARE PRICE

\$9.98

...WHILE THEY LAST

No corners cut in making this bag. Come in and inspect these features: water repellent, forest green duck cover. Vinyl coated bottom and hood. Soft flannel lining in attractive outdoor pattern. Air mattress pocket. Full 36"x80" cut size. Heavy duty 100" double-pull zipper. Filled with 3 lbs. of 100% Polyester fiber...the best synthetic material used for sleeping bag insulation.

KLIP-ON FOGGER—For fly control in your barn. Simply attach insecticide container and turn switch. Also throws insecticide fog to clear outdoor picnic areas of pests. reg. \$39.95. **NOW \$29.95**

STURDY PLASTIC LAUNDRY BASKET—1 1/4 bu. capacity. Check your old basket and replace it now at this less-than-half price bargain.

reg. \$2.49. **NOW \$1.19**

UNICO IMPLEMENT TIRE, 600 x 16, 6 PLY—Extra strength for great load carrying capacity, with multi-rib design to guard against side-slip on hills.

reg. \$20.95 plus tax. **NOW \$14.95** plus tax

MALLORY MAGNET FLASHLIGHT—Ideal for car, shop, home...low enough in price to buy one for each place.

reg. \$1.20. **NOW \$.69**

MALLORY FLASHLIGHT BATTERIES—"D" size, metal clad, zinc carbon battery...for instant power.

reg. \$1.15 ea. **NOW 2 for \$1.19**

24 FT. ALUMINUM EXTENSION LADDER—A lightweight (29 1/2 lbs.) ladder to get up to any home or farm job easily and safely.

reg. \$39.95. **NOW \$18.95**

HOUSE BROOM—Finest Lindsey Broom Corn. Plastic hanger ring. Why not get a couple while the price is right.

reg. \$1.75 ea. **NOW \$1.39 ea.**

2 1/2 GAL. GAS CAN...with flexible spout—A real "gasser" for power equipment, outboards, heaters, camp stoves.

reg. \$3.27 **NOW \$1.89**

12/2 ROMEX WIRE, WITH GROUND—Make the job permanent with this high quality wire. 250' coil.

reg. \$13.23. **NOW \$ 8.95**

ALL METAL FARM GATE, 5 PANEL Galvanized, 24 gauge steel.

reg. \$25.95. **NOW \$21.95**

GLF PREMIUM ROOF COATING—Extends life of asphalt or steel roofing.

5 gal. reg. \$3.65. **NOW \$2.75**

5' ALUMINUM STEP LADDER—Safe, light weight, and easy to store.

reg. \$16.41. **NOW \$9.25**

BARNES UPRIGHT CELLAR DRAINER—Eliminates cellar drainage problems.

reg. \$36.95. **NOW \$29.95**

UNICO REAR TRACTOR TIRE, 12 x 38, 13.6 x 38, 6 PLY—More draw-bar pull.

reg. \$114.95 plus tax. **NOW \$84.95** plus tax

12-VOLT HEAVY DUTY BATTERY—Extra power for cold weather starts.

reg. \$24.50. **NOW \$16.69** with trade

10 TON HYDRAULIC JACK—Will lift 10 tons up to 20".

reg. \$31.75. **NOW \$19.95**

LOAD-A-MATIC GREASE GUN—Handles cartridges or bulk grease.

reg. \$3.65. **NOW \$2.79**

CONTRACTOR WHEELBARROW—Oillube bearing, 2 ply 400 x 8 pneumatic tire. A real workhorse.

reg. \$33.20. **NOW \$24.95**

BHL



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Editorials

By Gordon Conklin



MILK FROM A TO Z

HAD THE darndest dream the other night. It seemed that a space ship from Mars floated down in my back yard and a very metallic looking guy climbed out and said, "Don't be alarmed, my name is Geefle and I'm trying to learn more about Earth." He went on to tell me about how they had monitored our language for some time and had learned to speak it fluently.

After the preliminary pleasantries, he said, "Say, what are you looking so puzzled and sad about, anyway?"

I allowed as how I was disturbed that national per capita milk consumption had tended downward in recent years, even showing a drop in total pounds of fluid milk sold in 1961. However, total U. S. liquor consumption in 1962 soared to 252 million gallons, 11 million gallons more than 1961. I told my strange visitor that all this troubled me.

Mr. Geefle replied, "Well, I'm sure there is a logical explanation; let's analyze the situation. First, I observe you earthlings emphasize taste in the things you consume. Let me sample each beverage."

I rustled him up a glass of milk and one of Old Panther saying, "We'll call the white stuff A and the other Z." He quaffed a swallow of milk and smiled, "Not bad, not bad!" Then he took a big slug of straight 100 proof—after a half minute he managed to get his throat unlocked to cuss me in a mixture of Martian and English, claiming I had tried to poison him. After he calmed down, we agreed that taste couldn't be the reason for differences in consumption trends.

"You on Earth talk always of fewer calories and more protein," he said. "Must be liquid Z has no calories and is high in protein."

"Nope," I informed him, "two martinis have the same number of calories as a three-inch

doughnut, and it's liquid A that has the protein."

"Well, what about the things your nutritionists recommend—they call them vitamins and minerals—surely Z must have more of them?"

"Just the opposite," I replied, "A contains an assortment of vitamins and is high in one of the essential minerals—calcium. Material Z has nary a one of these things."

"Well, then," Geefle guessed, "Z must be cheaper."

"No," I answered, "Old Panther costs five to thirty times more than milk. Of course, it goes a powerful lot further, too!"

"Well," the baffled Geefle said, "there must be something about Z that makes a person better, or more logical, or more capable."

"Not exactly," I replied, "I can remember in my younger days trying to kiss a cigar store Indian—all because liquid Z had convinced me it was Pocahontas!"

"All right," said the puzzled Geefle, "if you're so smart, **you** tell me why Z is setting new sales records, even though it tastes like molten iron; has plenty of calories and no protein, vitamins, or minerals; costs far more than most beverages; and sometimes leads one to—ah—rather peculiar behavior."

"Sure," I replied, "there's a very simple answer—Z has kicks!"

Geef's computer brain digested that for awhile, then his forehead antennae quivered, his eyes flashed, and somewhere inside his shiny head a bell rang faintly.

"I have it," he exulted, "if you want to sell more of a product, just put kicks in it! Your new dairy product research men have been working on all those things we mentioned that don't count—but there is an unlimited market for kicks!"

Bless his little pointed head, maybe Geef's adding machine brain saw something that has eluded us!

BLANKETY BLANK!

MY BLOOD BOILS every time I hear the misguided persons who want to prevent young people from working. There is a bill in the New York State Legislature that would strike out the existing law that permits employment of young people between 12 and 14 years of age in harvesting berries, fruits, and vegetables on farms when school is not in session. There is another, sponsored by Messrs. Rios and Ohrenstein, that proposes the ratification of an amendment to the United States Constitution, giving Congress the power to limit, regulate, and prohibit labor of persons under 18. The latter, I suppose, is designed to limit the labor force so there are enough jobs to go around.

Work has become a dirty word—it is now officially called "therapeutic activity." Some do-gooders who chose the right parents—and therefore need not work for a living—seem determined to increase the ranks of adult no-gooders with infusions of people who were forbidden the opportunity of earning money in their younger years. Lord knows, there's enough of the philosophy around already that

THE WINNER

By Esther Valck Georgns

March is the strangest month there is,
The meanest month by far,
Petulant and whiny,
Much colder than a star,

Much colder than an arctic night
For days. Then all benign,
Sunny as June, warm as July—
One thinks it will be fine.

Come morning snow is on the roofs,
A foolish, hungry bird
Huddles within a pine tree's green,
Too cold to chirp a word.

But all the while young April waits
Behind a distant hill,
She knows the victory will be hers
As always — and it will.

society owes everyone a living, whether a person decides to carry his share of the load or not!

In my opinion, lack of constructive work that has to be done is one of the major causes of juvenile delinquency. Without exception, the lives of really great men demonstrate the value of good work habits begun early in life.

I'm for **relaxing**—not tightening—the rules and regulations so that more of our young people could be hired. How about you?

JUST FACTS

SECRETARY of Agriculture Orville Freeman is doing everything possible to assure a "yes" vote on the coming wheat referendum. He has said in a speech to the National Wheat Referendum Committee, "Let us determine here today that when the farmer votes he will make his decision **on facts—not fear**. The choices are plain. Farmers can have \$2 wheat or \$1 wheat." Certainly big hearted of Orville to resist the temptation to sway votes by anything he might do, isn't it?

Reminds me of the time when I was working for a bank and, in a weak moment, agreed to be one of the judges for a beauty contest. One of the bank's best customers said, "I know you'll be impartial and fair, my boy."

Then, lowering his voice, he went on, "Just one thing, though, if my niece doesn't win I'll never set foot in your bank again!"

THIS THING CALLED LOVE

BY GOLLY, guess I'm a rank sentimentalist. The other night, I attended a banquet where an award was made to a 4-H girl with an outstanding record. As she walked toward the head table to accept a trophy, I watched the faces of her mother and father.

It seemed as though I could gaze back down the years and see these parents taking turns walking the floor with their baby daughter when she had the colic. The look they gave her was eloquent in testifying of the pleasures they had done without, of the long years of hard work, of patience and encouragement—all building toward what this girl had now become.

Somehow, in that instant, I glimpsed one of the mysteries of living—something of the fragile and unseen bonds of humanity that are at the same time fantastically strong. These parents had invested themselves without reservation—and now their faces shone as they reaped a reward beyond measure.

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Founded 1842 Volume 160 No. 3

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AA's Farm Dollar Guide

RUMOR SAYS THE ADMINISTRATION WILL RECOMMEND a drop in price supports of manufactured dairy products from \$3.11 to \$2.49 effective April 1. However, they propose to maintain dairy farmers' income by making government payments to dairymen who agree to cut milk production 10 percent below a base period.

BLEND PRICES FOR MILK in the New York-New Jersey shed for coming months are estimated by Administrator Blanford as follows: February, \$3.95; March, \$3.82; April, \$3.61; May, \$3.46; June, \$3.45. For the first six months of '63 the average blend price is 20 cents below the same months in '62.

ARTIFICIAL BREEDER COOPERATIVES in the Northeast are joining together in eastern breeders' associations for more rapid genetic improvement in the Ayrshire, Brown Swiss, Guernsey and Jersey breeds. Carefully-selected young sires will be used by all studs. Incorporation of the new cooperative (which will be composed of artificial breeder studs in New England, New York, New Jersey and Pennsylvania) is planned for March. More details later.

OVER HALF THE ORIGINAL BEEF COWS in an Oklahoma test fed a restricted (but adequate) diet remained in the herd in 1962; rest had been culled. In a similar herd which was overfed, only 16 percent remained in the herd in '62; others had been culled for failure to calve, and disease. Both herds started in '48 with 30 cows. Herd not overfed proved healthier and produced more calves.

YOU WILL LIKELY GET ONE OR TWO MORE PIGS PER LITTER from gilts if you breed at their third heat period rather than the first.

WE HEAR THAT HOG PRICES WILL BE LOWER at least into June; BEEF CATTLE prices also; but SHEEP and LAMBS are headed higher. GRASS and LEGUME seeds likely to be higher; HYBRID CORN and certified seed OATS in ample supply. POTATO crop down, probably Spring crop also. Potato growers from some states are urging government to subsidize table stock potatoes for export. EGG profits likely to be better in first half of '63; fall prices will be affected by number of pullets raised.

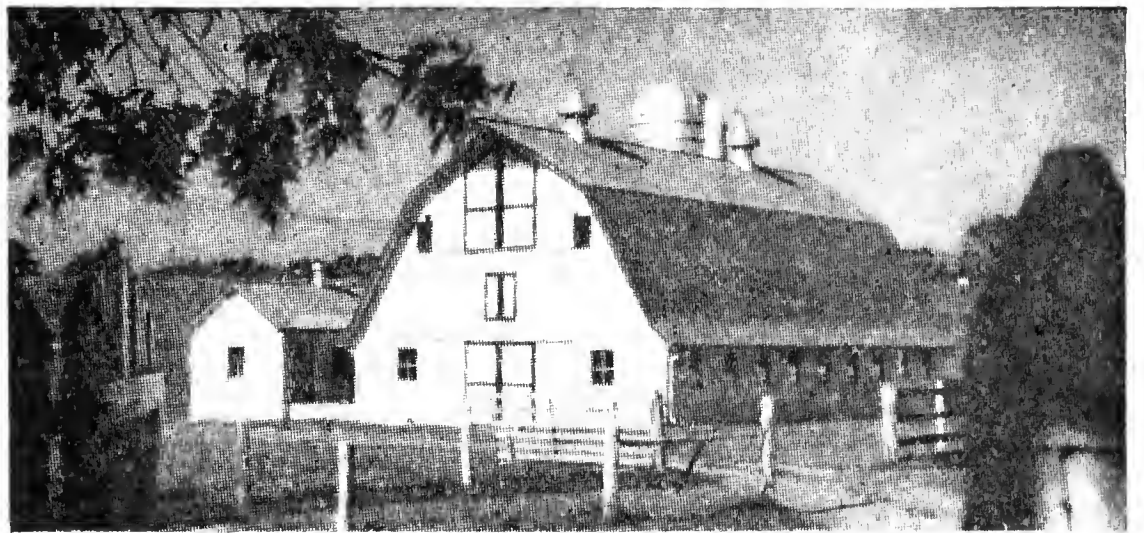
U. S. WHEAT GROWERS, numbering over 324,000, have signed up to divert over 5 million wheat acres to soil conserving uses, and are eligible for support at \$2 per bushel.

The Song of the Lazy Farmer

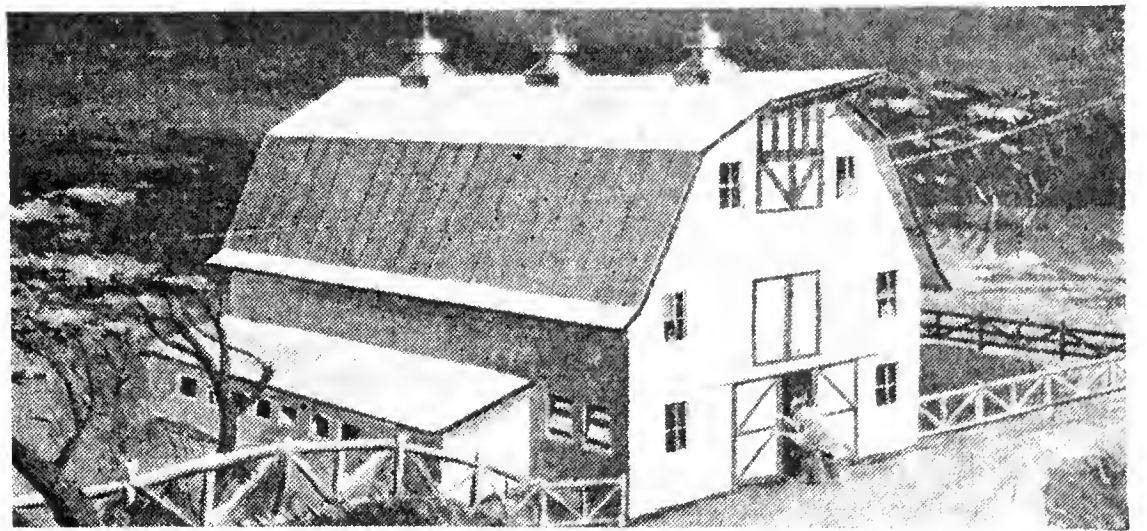


THE WINTER'S hard on neighbor's glands, he's got too much time on his hands. Since he don't have to work like mad, he does some thinking, and that's bad; 'most ev'ry day he wanders o'er to tell me that there'll be a war or else that taxes are so high you can't make money if you try. His face is almost two feet long as he orates 'bout what is wrong with all the world, including here, he doesn't see a thing to cheer. He grumbles that his crops were poor, his stock's had ailments he can't cure, and he is sure as he can be that there'll be drouth in '63.

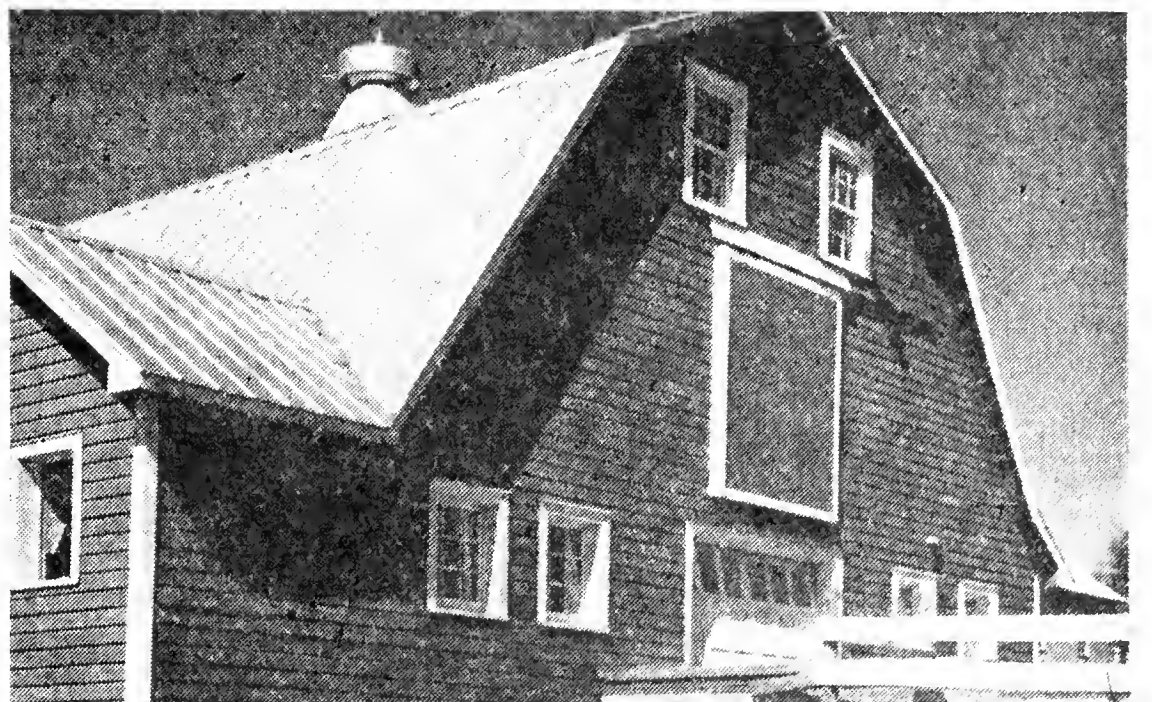
I s'pose that maybe neighbor's right, but why lay wide awake at night until your thinking gets you down and all you do is growl and frown? I'm not sure that worrying won't help, and it don't do much good to yelp to some small citizen like me who can't change things at all, by gee. 'Course, neighbor's trouble really ain't the stuff 'bout which he makes complaint. What ails him is, from spring to fall he simply don't relax at all, and so in winter he can't find enough to occupy his mind. If he were smart, he'd take his cue from me and loaf the whole year through.



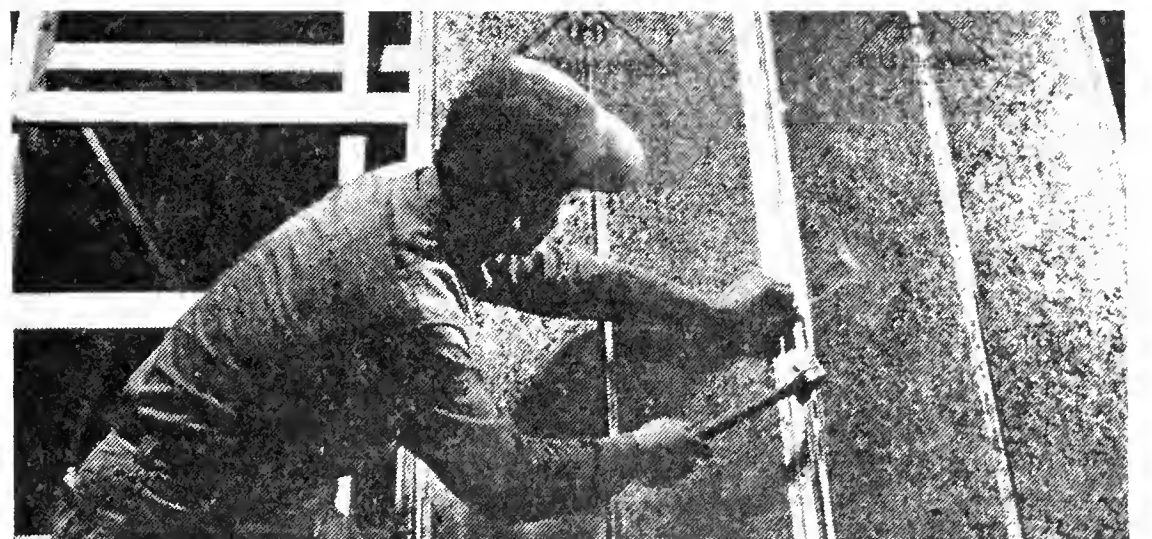
What roofing looks like a million bucks?



Stays put in the stormiest weather?



Fights off corrosion for years and years?



Costs the least to buy and install?

Answer: **Galvanized Steel Roofing**
made by **BETHLEHEM**



for Strength
... Economy
... Versatility



Are Your Plows All Ready to Go?

By CARL S. WINKELBLECH*



NEARLY every new development in tillage places greater emphasis on a better job of plowing and on less secondary tillage. We cannot readily change some of the land features that make plowing difficult, such as steepness, stoniness, or heavy texture, but in many instances we can adjust the plow to do a better job under these conditions.

There is no mystery to the art of adjusting a plow—just a few simple steps with careful observation of the position of the plow beams and the appearance of the furrows as adjustments are made. Every moldboard plow in use today is designed so that the top of the plow beams

should run parallel, in both directions, with the land being plowed. They should also run parallel with the furrow wall. Any changes in the basic adjustment of the plow or tractor should be made with this in mind.

The best place to make the observations and adjustments is on a fairly level, stone-free area of the field after making at least one round so that the plow and tractor can be positioned in an existing furrow. Following an orderly procedure in making adjustments will save time and eliminate confusion.

Set Rolling Coulters

If you use rolling coulters, check them first. A careless setting of the coulters can cause ragged and uneven furrows even though nothing else is wrong with the plow. Coulters cut trash, reduce power requirements, and reduce wear on the leading edge of the moldboard or shin piece.

Adjust the rear coulters first so that the furrow wall is straight and clean. Turn the coulters until the blade runs about $\frac{3}{4}$ inch wider than the moldboard; move the shank vertically until the coulters cut about $\frac{1}{2}$ the furrow depth. After the rear coulters are set and the bolts are secured, set the other coulters at the same width and depth.

A shallower depth setting is required in dry or stony soils. If penetration is very difficult, rolling coulters may have to be removed from

the plow in order to get the desired penetration.

Space The Tractor Wheels

This is important to avoid an "angling" pull. When using an attached plow, the correct spacing of the tractor wheels is extremely important. There is little opportunity to make changes in the horizontal hitch of attached plows to compensate for the wrong tractor wheel spacing. The correct wheel spacing for each size of plow can be found in the instruction book. If you have lost the book, don't hesitate to ask your dealer for this information. Some attached plows have no horizontal hitch adjustment. Others have slight adjustments which are made by rotating the plow crossbar or by moving the plow laterally on the crossbar.

When using a trailed plow, tractor wheel spacing is less critical, but you will have the best performance when the center of pull of the tractor and the center of load on the plow are the same distance from the furrow wall. If for reasons of safety or rusted axles it is not practical to move the tractor wheels, then proceed as follows:

Pull the plow into the furrow until the first bottom is cutting the correct width. Do this without regard for the location of the tractor. Measure the width of the first furrow—don't guess.

Next, disconnect the plow from the tractor and move the tractor

into the desired position with respect to the furrow wall. Then change the drawbars on both the plow and tractor so that they fall on a straight line between the center of load on the plow and the center of pull on the tractor. These changes are made at points A, B and C in figure 1. Connect the plow to the tractor and try the setting. If the first bottom begins to cut too wide or too narrow compared to that furrow width you measured previously, move the bolt at point C one hole to the right or left.

Once you have fixed the location of the center of load in your mind, it is possible to stand behind the plow and sight between the centers of load and pull. The plow drawbar should closely coincide with this sight line. This procedure divides the side draft equally between the plow and tractor, but does not affect tractor steering.

Check Vertical Hitch

A very common reason for poor plowing is that the plow is forced to run on its "nose." This occurs with a trailed plow when the hitch or plow drawbar is too high, and with an attached plow when the upper link is too short. The plow will not hold to a uniform depth; the furrows will not turn over properly; power requirements and wear increase greatly.

Figure 2 illustrates the basic principle of adjusting the height at H so that it falls on a straight line between the center of load C and the tractor drawbar D. In most situations the hitch brackets should be lowered as far as possible, otherwise weight is removed from the rear wheel and added to the front wheel.

A short upper link on an attached plow has the same effect on performance as a high hitch on a trailed plow. As a trial, the upper link should be set according to the instruction book and then length-

(Continued on Page 14)

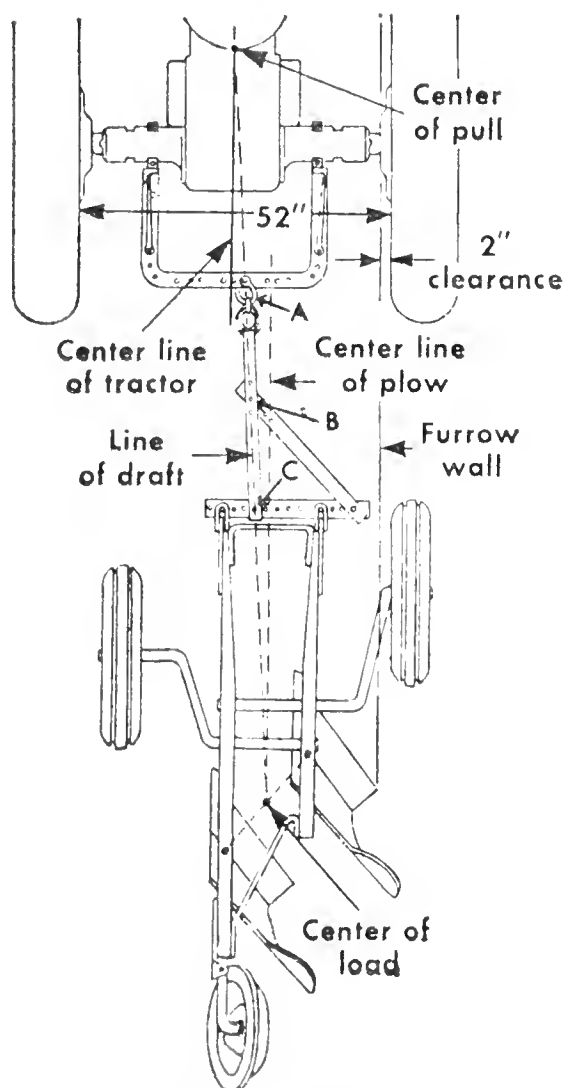


Figure 1—Lining up

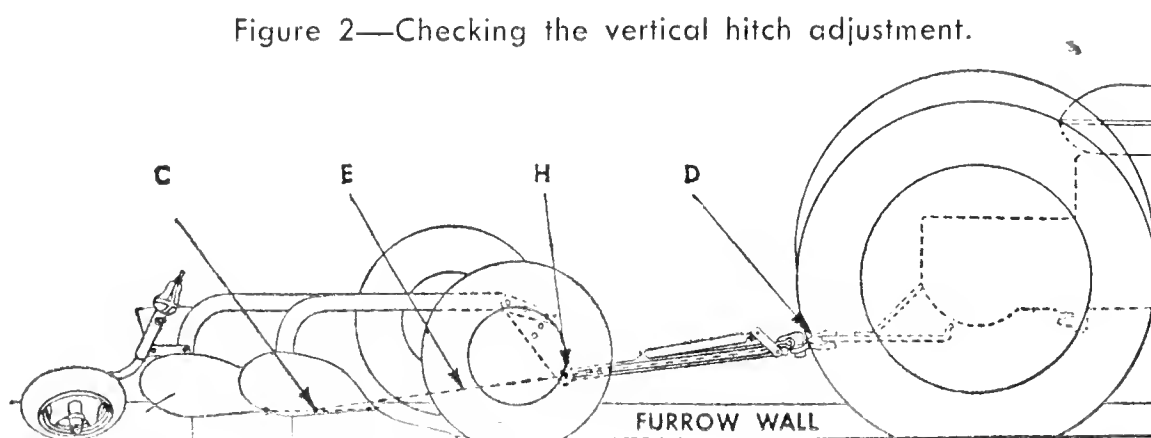
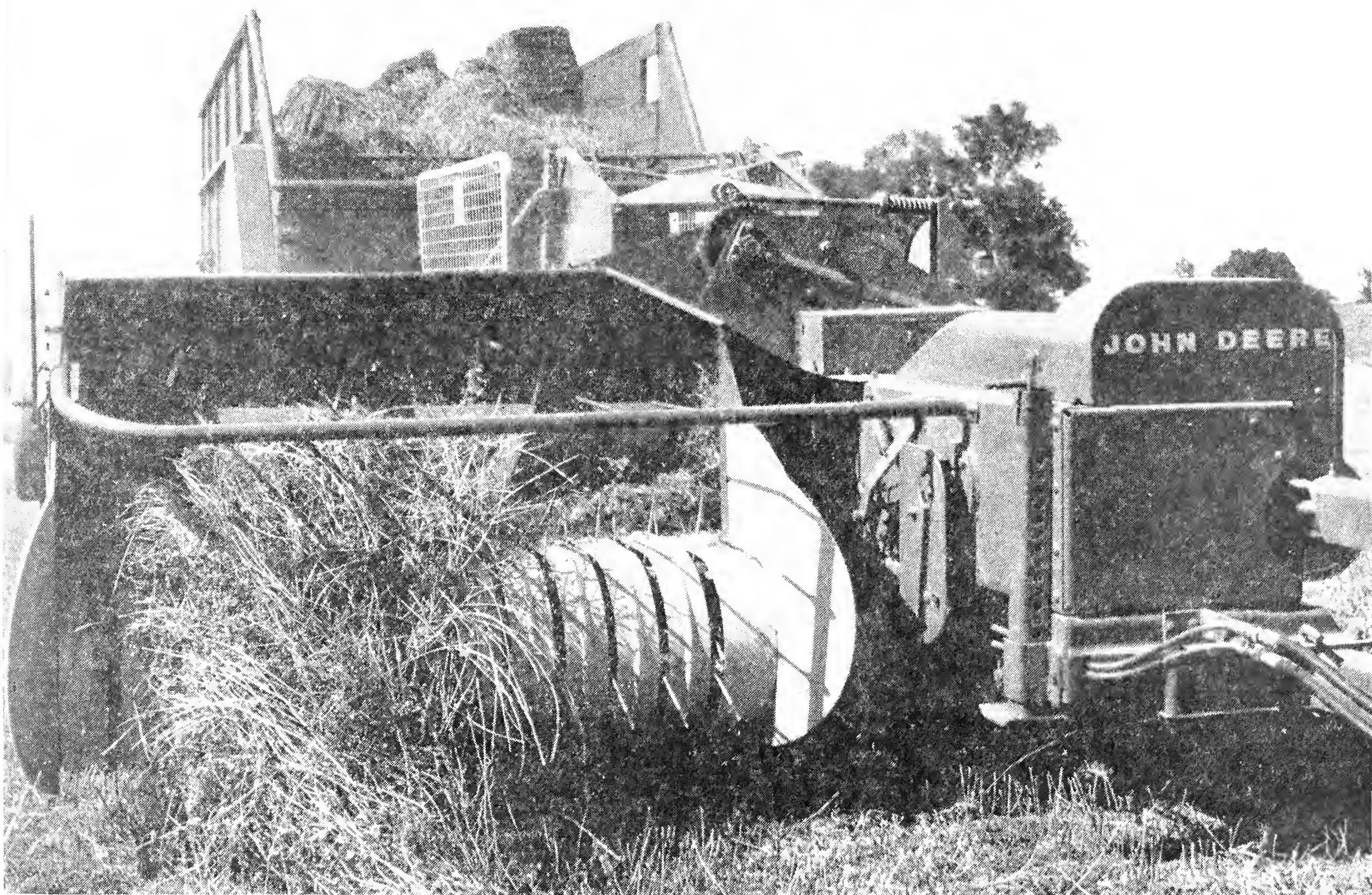


Figure 2—Checking the vertical hitch adjustment.

Another addition to *The Long Green Line of Customized John Deere Forage Equipment*

New John Deere 24-T Twine-Tie Baler



a full-sized baler with a compact price

The new John Deere 24-T Twine-Tie Baler has an amazingly low price tag. For this price you get big capacity—from its full-sized pickup right on through. You get accurate tying. You get neat, square-cornered 14x18-inch bales. You get protected operation through many safety devices. You get strong, high-quality materials. You get precision workmanship. *You get a low-cost baler with big-baler benefits.*

Put the new “swivel-hipped” No. 2 Bale Ejector on your new 24-T Baler. You’ll bale and load faster . . . easier . . . all by yourself. The No. 2 pivots from side to side, controlled by a remote hydraulic cylinder. This gives you pinpoint throwing accuracy when baling on sidehills, contoured land, and when making sharp turns. What’s more, the No. 2 Ejector tosses *big, heavy bales*—from 22 to 38 inches long and weighing up to 80 pounds.

See your dealer for all the facts and figures on the new John Deere 24-T Baler with No. 2 Bale Ejector. His *customized Credit Plan* makes it easy to own machines from *The Long Green Line of Customized John Deere Forage Equipment.*

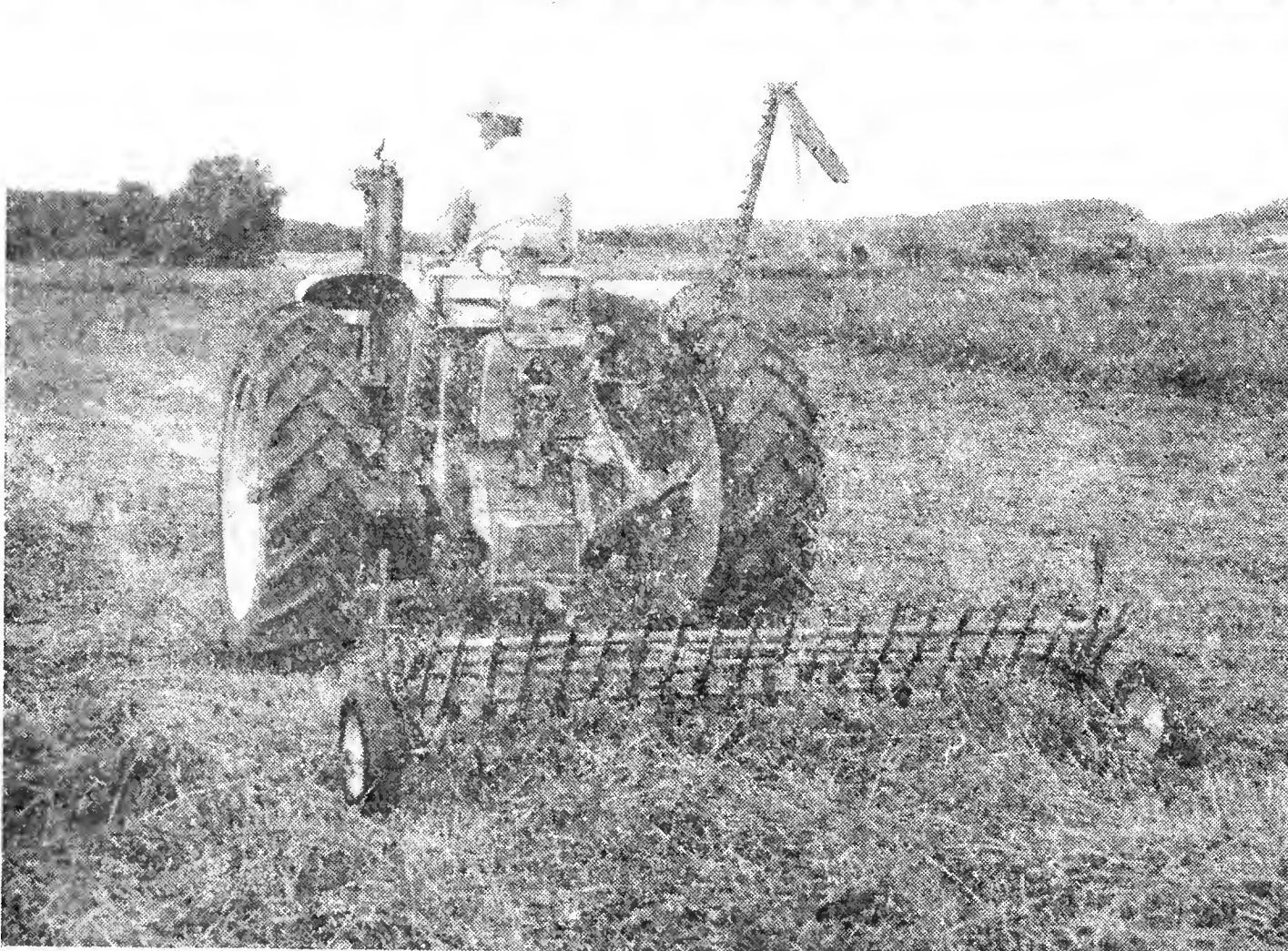
John Deere design,
dependability, and dealers
make the difference



JOHN DEERE

3300 River Drive, Moline, Illinois

"I expected the John Deere 24-T Baler to cost as much as my old 14-T Baler but to my surprise it didn't. The Bale Ejector is a real work-saver."



"I use a Swath Fluffer to speed hay curing because I can run it faster than a conditioner and the results are just as good. Fluffed swaths cured about one-third faster than unfluffed swaths."

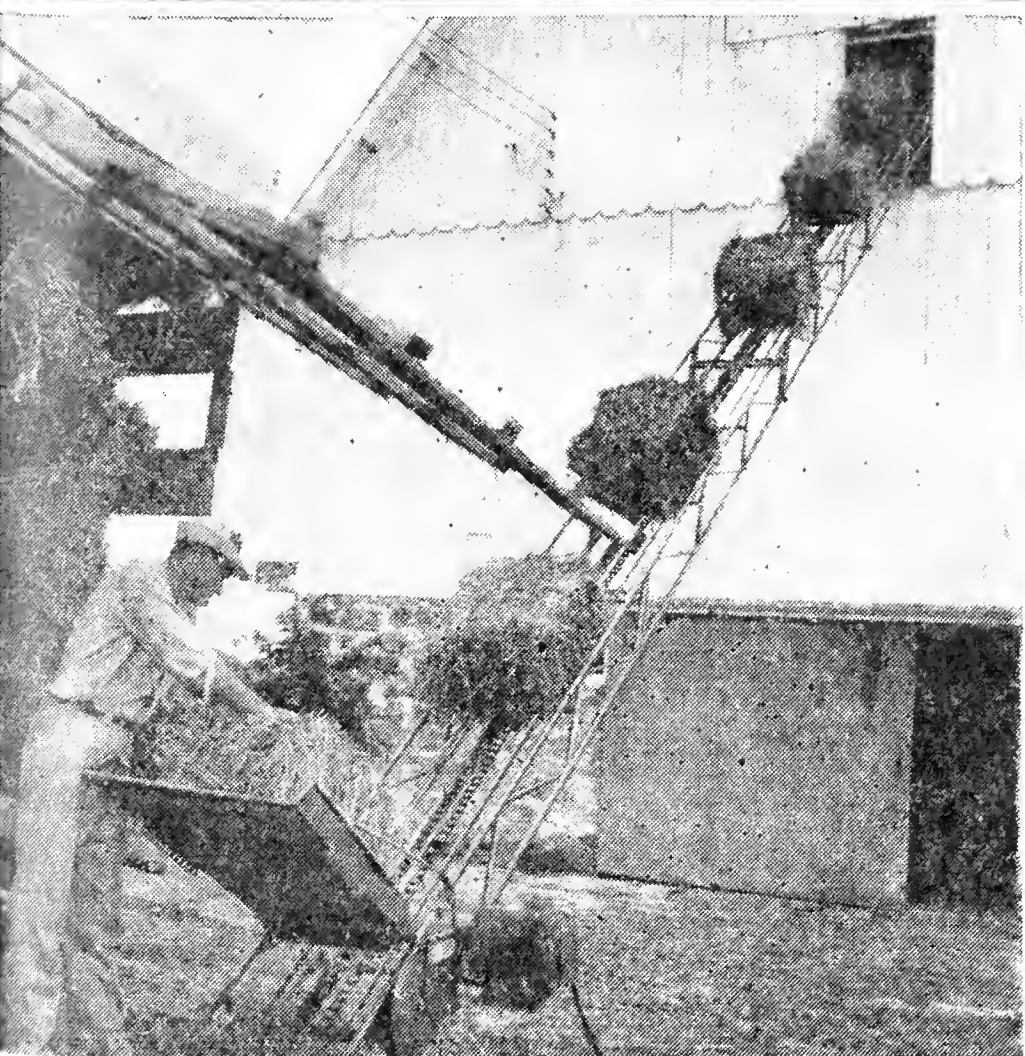


"The extra flexibility in the 894-A's Rubber-Ball-Joint Teeth lets me rake cleaner because I can set the teeth lower."

"I like the up-front view and smooth operation of my 10 Side-Mounted Mower. It does a clean cutting job, too."



**"My John Deere
one-man system
reduces haying
time by $\frac{1}{3}$..."**



"Storing goes considerably faster with the 200 Elevator-Conveyor. This eliminates the bottleneck at the barn."

A Wisconsin dairyman reports: James Heike has a 330-acre dairy farm near Mondovi, Wisconsin. Each year he raises approximately 70 acres of alfalfa, 100 acres of corn, and 40 acres of oats. His 45 head of select Holsteins have a herd average of 12,000 pounds of milk. Mr. Heike also raises about 350 pigs each year. His story below tells why he makes hay with the John Deere One-Man System.

"My John Deere one-man system reduced haying time at least one-third. When I bought my one-man haying equipment, I expected to save time, labor, money, and make better hay. Every objective was fully met.

"I was impressed by the low cost of the new 24-T Baler. Having owned a John Deere 14-T Baler, I expected the cost of the 24-T to be about the same but to my surprise it wasn't. I like the narrow width of the 24-T and its many safety devices. It's easily adjusted . . . in fact, I don't know how a baler could be any simpler.

"The new No. 2 Bale Ejector is the biggest advancement in haying since the baler itself. I naturally saved labor because there isn't anyone on the wagon. My baling speed now is based on the capacity of the baler, not by the man on the wagon. The pivoting feature of the Ejector is a must, especially on contoured land like mine. Tilting the Ejector lets me put on bigger, more evenly distributed loads. I can go around the sharpest turn and still put the bale in the wagon. I get better than 100 bales 36 inches long in each load.

"The 200 Elevator-Conveyor combination puts bales away as fast as we put 'em on the elevator. With our old storing method you couldn't cut enough elevator openings in the barn to get the bales located where you would like to have them. Now the conveyor puts bales anywhere I'd like to have them. Random stacking gives me additional storage space because the bales are piled as high as the conveyor.

"I consider top-quality service—from informed service people with the equipment and parts to get the job done right—of utmost importance. I get all of this from my John Deere dealer."

Like James Heike, you, too, can save time, labor, and money by systemizing your haying operations with John Deere Equipment. See your dealer for complete information on the many machines in The Long Green Line of Customized John Deere Hay Tools. If you would like to have any of these machines demonstrated on your farm, just ask for it. Use the convenient John Deere Credit Plan to put modern equipment on your farm.



JOHN DEERE

3300 River Drive, Moline, Illinois

John Deere design, dependability, and dealers make the difference

Farming Beyond the Rocky Mountains

Here are some ideas from Western agriculture that will be of interest to Northeastern farmers

By JARED STILES*

LAST SUMMER Mrs. Stiles and I spent six weeks traveling by car to the West Coast, visiting agricultural colleges, farmers, and cooperatives. This trip had been planned and contacts established over the past several years.

Western Dairying

Milk production per cow, particularly in the Los Angeles area—but also in some other locations in California—is high. The Los Angeles County DHIA records for more than 31,000



JARED STILES

cows in 1961 show an average of 14,000 pounds of milk per cow. Contrary to the belief of many people, the larger the herd—the **higher** the production is the rule there rather than the exception. There were 255 cows in the average herd, but those herds with over 500 cows frequently had the highest production of any group.

Frankly, my principal interest was to visit with the dairymen who had high milk production and low cow turnover. I concluded that they attained these records mostly by six important practices:

1. They feed up to 11,000 pounds of TDN per cow, annually. New York dairymen feed an average of about 7,000 pounds.
2. They have practiced many years of rigorous culling for production, longevity, and short milking time.
3. They have used practically 100 percent artificial insemination over the past 15 years.
4. They follow a comprehensive preventive health program, combined with detailed records of individual cows which are analyzed regularly and completely.
5. Their milking machines are installed properly and maintained to operate correctly.
6. They follow excellent milking procedure.

This adds up to conducting the business affairs first and the husbandry second.

Dr. Vincent Jessup, the dynamic general manager of Jessup Farms in Glendale, California, is the second generation on this farm, his father and mother having started with 30 cows in 1919. Today the enterprise consists of 1,700 milch cows, about 700 dairy heifers, 1,000 head of beef cattle, five drive-thru cash and carry retail milk businesses, and an artificial breeding service of the magnitude of 100,000 first services annually. The dairy heifers and beef cows are kept on a ranch in the San Joaquin Valley.

Production of the 1,200 cow Burrough Bros. herd at Stockton has increased from just over 8,000 pounds to 16,000 pounds, with herd replacements decreasing from 50 percent to less than 17 percent annually. Dr. Ormsbee is their veterinarian. He spends little time strictly as a veterinarian, but a great deal of time on the

management of the herd, including feeding, breeding, milking procedures, milking machine installations and records.

Dr. Ormsbee made an interesting point while we were discussing ketosis. He said after they started putting magnets in two-year-old heifers, the incidence of ketosis dropped significantly. Magnets are a good preventive health measure on most dairy farms. Another preventive health measure, which Dr. Ormsbee credits with keeping mastitis low, is to milk all two-year-olds first, then the three-year-olds, followed by the older cows.

Raymond Hansen of Dairy City, adjoining Los Angeles, was selected by the Ford Company in 1962 as the "Dairyman of the Year." You probably recall that Harold Hawley, who is a regular contributor to American Agriculturist, had a similar honor two years ago. Raymond headed the group which incorporated Dairy City, a 10 square mile area with 80,000 cows.

In my estimation, two important reasons for Hansen having a herd average exceeding 16,000 pounds are his excellent relationship with his cow dealer and hay supplier. He took me to the man from whom he buys his replacements and the man from whom he buys hay. All dairymen purchase their total hay requirements—a half million tons in the 10 square miles. I have never visited an area where farmers were as prosperous.

Dairy Replacements

Ross Reed operates a dairy cattle replacement business at Artesia, California. I visited his operation, where he had 1,200 calves under 6 months of age. After they are 6 months old, they are taken up to his ranch in the valley until ready to calve, and then sold to dairymen in the Los Angeles area.

It astonished me to find that most dairymen favor the union to which their milkers belong. Excellent milkers are readily available from the union. The milkers work 45 hours per week on a 5-day basis and receive approximately \$600 per month. They milk and grain 90 cows twice a day. The cost of milking per 100 pounds of milk is low.

We couldn't get over how clean and free from flies the barns were in the Los Angeles area. With a large hose, high pressure water is effectively used to wash cows and barns after each milking. Adoption of this idea to our conditions might eliminate some mechanical gutter cleaners.

Milk Prices

California milk prices are controlled by the State, and starting in April, 1962, consideration is given in the milk pricing formula to solids not fat (s.n.f.). It was too early to determine how this pricing system is going to work. California has 27 different milk pricing areas, but they have no strong milk cooperatives; in fact, there are 50 producer associations. The distributor often has different contracts with individual producers as to the percentage of milk that will command fluid prices.

About 90 percent of the milk produced in the Los Angeles area is sold as fluid. Chain

stores are beginning to either build or buy processing plants, often aided by dairymen.

An important development which may well find a place in the East is the drive-thru milk stores. In the last 7 years in the Los Angeles market, the volume of milk sold through these stores moved from 1/2 percent of the total to over 15 percent. In March 1962, five and one-half million gallons of milk were sold through grocery chains, including supermarkets, compared to three million gallons through cash-and-carry stores.

Free-Stall Barns

One reason for going to the State of Washington was to visit dairymen with free-stall barns; this State now has more than 100 dairymen with this system in operation. The dairymen I visited were enthusiastic about it, and claim they are using only 15 to 25 percent as much bedding as formerly. County Agent John Sargent in Skagit County said he didn't know a dairyman who didn't like the system. The cows are quieter than in conventional loose housing, cleaner, and users claim it requires less labor. I failed to find any specific difficulties.

One of the outstanding dairymen I visited was Floyd McKennon of Monroe, Washington, 40 miles north of Seattle. He operated a beef and dehydration business until five years ago when, being 70 years young, he decided to go into the dairy business. His first move was to locate and build a retail drive-thru milk store in Seattle. Next, he built a milk processing plant and milking parlor on the farm, and then he purchased 300 cows to start the operation.

When I was there, he had 900 milkers and four drive-thru retail milk businesses in Seattle. His cows looked the part of a herd averaging 14,000 pounds. McKennon is an excellent cow man, operating one of the tightest-controlled businesses you will find anywhere.

At the Henry Wiedenback Farm in Arlington, Washington, I first learned about the liquid or slurry manure handling system. This consists of a properly designed concrete tank in the ground with an agitator. Wiedenback had two tanks holding 36,000 gallons. The manure is scraped into the tank through an opening about 1 foot wide and 10 feet long. Even with considerable hay being scraped into the tank, we found no problem (with his equipment) in pumping the material into a tank to spread on the land. Wiedenback said one man could pump and spread the manure from 120 cows, accumulated over a three-week period, in one day.

At Seattle, the manager of the Farm Supply Division of the Washington Farmers' Association had made a contract with the company which manufactures the equipment handling liquid manure. He reported his experiences with the system and company as being very satisfactory.

M. G. Huber, the extension agricultural engineer at Corvallis, Oregon, told me the system has worked well for dairymen. He further stated that there was a colony of Swiss dairymen who had used this basic principle for many years. We are investigating the possibility of adding liquid phosphoric acid to give a more balanced fertilizer.

Crops and Equipment

One of the most capable, unassuming individuals with whom I became acquainted was Dr. W. A. Frazier, who is in the Department of Horticulture at Oregon State College of Agriculture. Dr. Frazier has succeeded in breeding a bush bean from the blue lake pole bean. In going over his field work, I was amazed by the number of tests. His group observes about 1,000,000 bean plants annually and have tried some 800 crosses. Dr. Frazier is testing different width rows, and last year found that a 12-inch spacing with adequate fertilizer and irrigation doubled the yield of beans per acre.

The Shell Development Laboratory at Modesto, California, is doing extensive research

(Continued on Page 14)

* Director of Research, G.L.F., Ithaca, N. Y.

Tractor Transmission



HOW MANY QUESTIONS CAN YOU ANSWER?

1. How many automatic tractor transmissions are there?

☐ SEVEN ☐ FOUR ☐ NONE ☐ ONE

None are automatic and no tractor is automated. Automatic transmissions will shift themselves from low to higher ranges without a signal from the driver. No farm tractor will do this. No practical tractor operates under automation because this would mean the tractor operated itself without human guidance. Everyone knows there will have to be a man on every tractor for some time yet. But Ford's Select-O-Speed transmission is the nearest to being automatic since it has no clutch pedal and will power shift to any speed range the driver selects . . . *on the go* without stopping.

2. Is there a completely full-range power shift on the market?

☐ YES ☐ NO

Yes, only Ford's Select-O-Speed can be power shifted through the *complete* number of gear ratios. This means *completely selective* on-the-go shifting to any of 10 forward or 2 reverse speeds. There is nothing like it on the wheel tractor market today. Some transmissions have power assist. Ford has the *only* complete power shift.

3. How many transmissions allow unlimited non-stop shifting on the go?

☐ ONE ☐ TWO ☐ THREE ☐ FOUR ☐ FIVE ☐ SIX

Only one . . . with Ford Select-O-Speed you *never* have to stop to shift! And Select-O-Speed has no clutch pedal . . . no fluid coupling . . . it's *always in solid gear drive*. There's even a locked "park" position. Some transmissions will shift from high to low range within limits of one single gear range . . . for other gear selections you stop and clutch. Another type can be shifted in motion, for example, between pairs of gears . . . but usually a clutch must be pushed and the tractor will stop even when doing ordinary field work.

4. Can you "skip shift" up or down on the go to any speed with any of the new transmissions?

☐ YES ☐ NO

You may choose any speed you need at any time . . . no matter what gear number Select-O-Speed is set for at the moment. For example, you might be plowing in 7th and need to drop all the way down to 5th for non-stop plowing through a particularly tough spot. Or, when hauling on the road, you can start in a low gear and then shift up to a much higher speed—on the go! This will actually save money because every unnecessary stop and start costs you extra fuel and

time. You can even get a neutral bypass plate to let you skip faster from forward to reverse when doing loader or other back-and-forth work.

5. How many "new type" tractor transmissions have a simple straight-line shift pattern?

☐ ONE ☐ TWO ☐ THREE ☐ FIVE ☐ NONE ☐ ALL

Just Ford Select-O-Speed can be operated with a simple up-and-down wrist motion. Handy lever on the dash swings up through higher speeds and down for lower ranges. You can even read the gear number and ground speed on the selector dial. No other transmission compares with this single-lever-for-all gears, simple action control.

6. Who makes the only power shiftable independent PTO?

☐ AC ☐ CASE ☐ FORD ☐ IH ☐ JD ☐ M-F ☐ MM

Only Ford Select-O-Speed tractors are available with completely independent, *power-shiftable* PTO's. There's nothing like matching ground speed to changing field conditions by power shifting Select-O-Speed. There's nothing like Ford's PTO for non-stop turns and control on row-ends . . . to start or stop it you just pull or push a handy T-handle on the dash. Available with 540 rpm, or 540 and 1000 rpm with ground drive. On the "6000" tractor you can have both 540 and 1000 rpm at each of two throttle settings for heavy or light loads.

7. How much "extra" is full power shift?

☐ OVER \$400 ☐ \$300 TO \$400 ☐ UNDER \$250 ☐ STANDARD EQUIPMENT

Two money-saving answers to this question. Suggested list is less than \$250 on some Ford tractor models. Select-O-Speed is standard equipment on other models. Either way you are *way ahead* . . . ahead in manhours saved . . . tractor hours saved . . . fuel saved . . . maintenance costs saved . . . machinery wear saved.

How did you score? Why not put yourself in the top class with a Ford Select-O-Speed tractor! Three power sizes: 2-3 plow "2000", 3-4 plow "4000" and 5-plow "6000" tractors. All Purpose and Row Crops. Three fuel options. Ford-backed blue ribbon quality. The easiest shifting and handling tractors in the world are Ford Select-O-Speed tractors . . . try one for yourself—you'll see!

PRODUCTS OF  MOTOR COMPANY

SEE YOUR NEARBY FORD TRACTOR AND IMPLEMENT DEALER

FORD

LEADS IN FARM DESIGN



Bank president Leonard Mott (right) visits with Horace Reynolds of Poplar Ridge, New York.

A COUNTRY BANKER COMMENTS

By GORDON CONKLIN

THERE IS hardly a farmer alive today who has never had to borrow money to provide capital for his business. Time was when it was almost considered shameful to have to hit up a lender for some of the long green—but modern agriculture requires so much land, equipment, livestock, and supplies that borrowing is accepted as a matter of course.

Figures prepared by the USDA for 1961 showed a national agricultural debt of \$27.2 billion, just over one-fourth of which was held by banks. Incidentally, the same source gave the equity position of farmers at 87 percent—that is, only 13 percent of total farm assets represented borrowed capital.

I began wondering a while back about what a country banker's comments would be about agriculture in general and farm credit in particular. A banker has endless opportunities to know the inner workings of many a farm business.

One organization known as a "farmer's bank" is The First National Bank of Moravia, New York—so I ambled up that way recently to visit with the folks who make it tick (or is it jingle?). The bank celebrates its 100th anniversary this year (founded in October, 1863) and has National Bank charter number 99—the 99th National Bank organized in these United States. It is an independent business, serving rural areas, with neither branches nor a parent by merger. Seventy-five percent of its loans are made to farmers or to businesses directly serving agriculture.

Its president is A. Leonard Mott, who was born in nearby Locke. He is a director of the Federal Reserve Bank of New York and is a member of the Administrative Board of the New York State Bankers Association. Somehow he also finds time to be a trustee of the First Methodist Church and a Rotarian.

Here are some of his replies to my questions:

What general advice would you offer to borrowers?

Be satisfied to enlarge your business at a moderate rate—"to gain by the yard is hard, but by the inch it's a cinch." Too many people who try to go too fast end up having auctions.

Don't load yourself with debts that are humanly impossible to pay off just because you know of a neighbor who, during World War II, paid off all his debts in a few years. Bankers sometimes find borrowers who are mighty hard to convince on this business of avoiding going in too deep.

They should always remember that people selling to farmers want to sell. There is nothing wrong with that—many of our bank customers are businesses that serve agriculture, and serve it well! But it's easy to lose sight of the total farm operation in a dicker over one particular new item.

And it's easy to get in too deep with credit on a piecemeal basis—a note here, an open account there, a mortgage somewhere else. Suddenly, the farm family discovers it can't chew all those separate bites at once. Whoever you decide to borrow from, keep your credit eggs in one basket—it's better for them, and it works out best for you. If someone comes to us for credit in addition to what he has at some other lending institution, we encourage



Elondo Greenfield, vice president and cashier of the First National Bank of Moravia, New York, goes over business records with dairyman Al Church.

him to contact the place where he has already established a line of credit.

What about that golden word of modern farming—management?

One of our customers tells me that he comes downstairs at 5 a.m. every morning—but he doesn't do a tap of "work" until 6 a.m. During that hour, he figures out assignments for his four hired men, plans where to move his equipment, thinks about what is needed for next week—and next month—and gets his quarter-backing set for the day so most every "play" clicks without a hitch.

"It's the most valuable hour of the day," he says. In the recipe for success, more elbow grease just can't replace sweat from skull sessions. **Every farmer** needs to do honest-to-goodness management planning of this type—preferably with some good records of past performance for guides.

Our bank gives away 200 to 300 farm account books each year. We find that cost control is too often a weak spot in a farm business—primarily because adequate records are not available to spot the leak in the bucket.

We think a farmer should set goals at least three years ahead. Decide where you want the business to go and how to get there. If equipment seems to be one of the requirements, sharpen your pencil and figure out whether it will pay for itself. Don't forget, when making these calculations, the hidden costs such as depreciation and interest on the investment.

While I'm on the subject of management, I want to mention the necessity of getting rid of "deadwood" in a farm business. Cull out those cows that DHIC records prove to be low producers; unload hens when their production period is over; find out what is causing low crop yields.

What do you look for when you drive in a farmyard to indicate the quality of management?

General neatness—the general appearance of buildings and farmstead. I look to see whether machinery is under cover, whether this family may be "machinery poor" from too rapid mechanization. Of course, the appearance of livestock is important and so are the milkhouse records. Naturally, visiting with the borrower himself is the best way to judge.

You know, I've been amazed over the years to see two neighbors do things very differently—and yet both make a good living. It's a humbling experience, and makes me avoid sweeping statements about how things always have to be done.

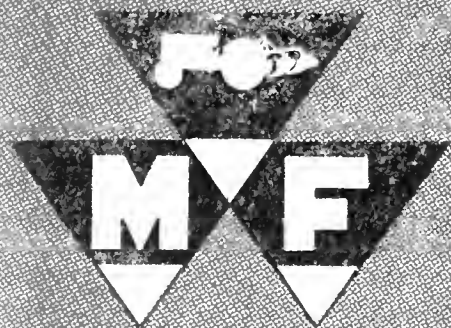
What about those "four C's" of farm credit—character, capacity, capital, and collateral?

Well, character is mighty important. No group of people, in my opinion, is generally more honest and reliable than farmers. We start with character—without it, collateral doesn't mean much.

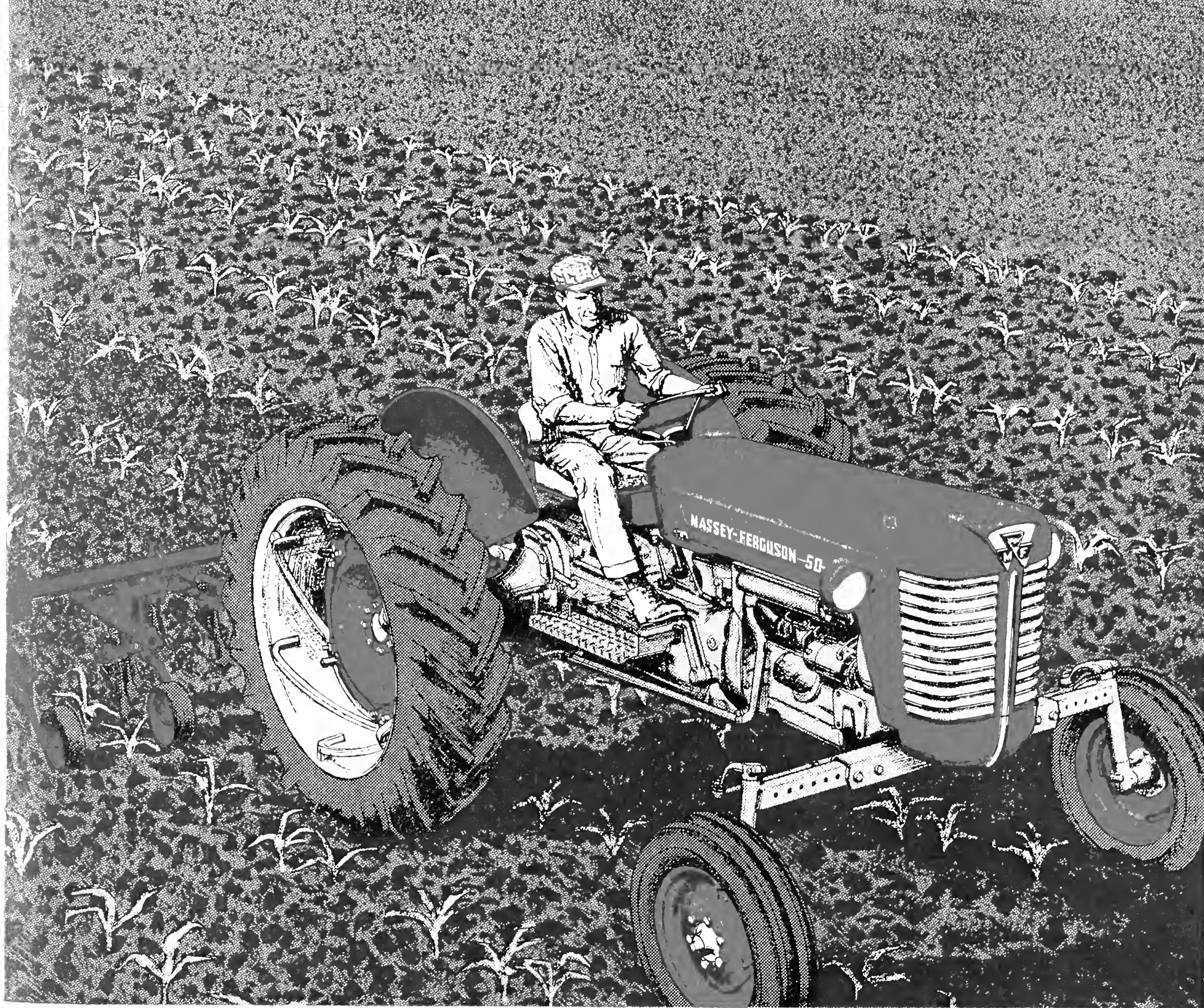
Capacity becomes more important each year. Farmers need even better training now than even a decade ago; new developments constantly make obsolete what we knew yesterday. Be realistic about the capacity of the business—and the family—to pay off debt. For dairy farms, we recommend 25 percent of the milk check as a maximum to pay toward debt reduction. We used to think one-third was the upper limit, but now we're beginning to think one-fifth may be nearer right for the future.

Adequate capital is a must for any business; undercapitalization can put a farmer behind the 8-ball as fast as overborrowing. Most businesses require considerable capital; farming is not alone on this score. We always urge a balance between long term and short term borrowing, depending on the income. A shift to

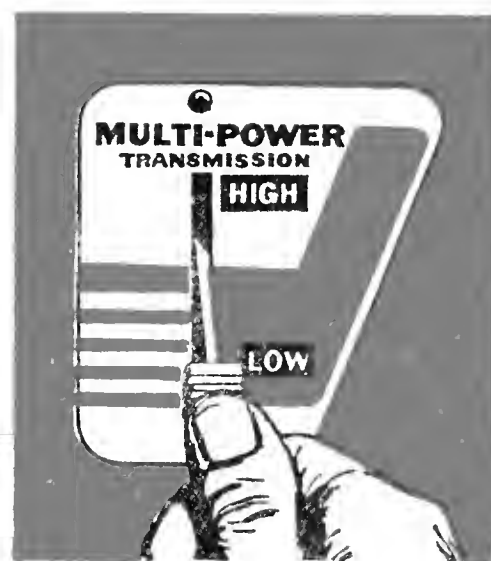
(Continued on Page 23)



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THE SHOW-OFF. This high-stepping MF 50 rowcropper can't help but show up any other 3-plow tractor. How come? Ferguson System mostly. Can't beat it for speed and precision. Add Multi-Power—with 12 forward speeds—and you shift on-the-go . . . at the flip of a switch! Comes in 4 front ends, with power steering, differential lock, new Float-O-Matic seat. Take the MF 50 down a few rows yourself. You'll get quite a show!



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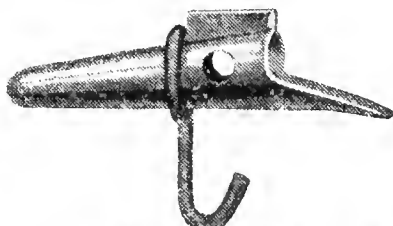
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COMMERCIAL CHEMICAL CO.
Rahway, New Jersey

Are Your Plows All Ready to Go?

(Continued from Page 6)

ened or shortened slightly according to field conditions. Check to see that the plow beams are level — if not, and greater plowing depth is desired, add up to 150 pounds of dead weight to the plow beams rather than shorten the upper link excessively.

There isn't much chance of operating with the hitch too low or the upper link too long—the plow simply won't penetrate.

Rolling Landside

Every plow that has a tail wheel or rolling landside (thrust) attached near the rear plow bottom is designed to carry some of the side force of the turning furrows. For this reason, the rolling landside should be adjusted to run in the corner of the furrow, and it should be moved far enough toward unplowed land so that there is about $\frac{1}{2}$ inch clearance between the furrow wall and the regular landside. (A in Figure 3) The rolling landside also controls the amount of "down" suction. The wheel should be lowered until there is also about $\frac{1}{2}$ inch of clearance between the bottom of the furrow and the heel of the regular landside. (B in Figure 3)

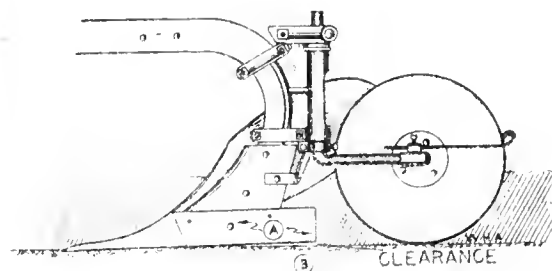


Figure 3—Rolling landside.

Plows which do not have a tail wheel are built with a much longer landside to provide the greater contact area needed to overcome the side thrust. There should be no clearance between this type of landside and the side or bottom of the furrow. In fact, when the hitch is correct, it should leave a distinct pressure mark in the corner of the furrow.

Sharp Cutting Edges

Many plowing troubles are caused by dull and badly worn plow points. You pay for good, sharp points one way or another. Tests show that about half the power requirement is used in making the horizontal and vertical cut. Although a new set of points represent a sizable cash outlay, the indirect costs of dull points in the form of poor penetration, more tire slippage and a higher fuel bill can more than equal the investment. The useful life of steel points can be extended two to three times by sharpening and hard facing the cutting edges. It is even more economical to hard face a new plow point before it is put in use. See page 18 of this issue for ideas on how to do this.

Plowing

Dry, stony hillsides present a real test for a plowman. The basic adjustments should be made on level land, but there are other attachments and "common sense" practices that are useful under adverse plowing conditions.

Moldboard extension, although seldom needed on level land, gives the turning furrows an extra push to keep them from falling back on a hillside. The extensions should be set so high that they make contact

near the top of the furrow. When they contact the midsection of the furrow, unnecessary side thrust is added to the plow.

Cover boards or jointers are useful in covering trash. They eliminate the ribbon of vegetation that is likely to show between each furrow. Cover boards are preferred by most farmers over jointers because they interfere less with penetration; they are less subject to wear; and they remain in adjustment longer.

A landing lever or hillside hitch is necessary to cut uniform furrows across a hillside. This attachment provides a convenient means to angle the plow into or away from land as the situation demands. On some attached plows it is standard equipment, on others it can be purchased as an accessory; it cannot be used at all on some types of attached plows. Your local dealer can tell you whether one can be obtained for your particular plow or tractor. It should be an important item to consider in purchasing a new plow for hillside work.

Low power and lack of weight are two sources of trouble on hillsides. You might better pull one less plow bottom than try to overcome excess tractor slippage. Extra weight added to the tractor or to an attached plow is also a good "stabilizer."

Farming Beyond The Rockies

(Continued from Page 10)

on the effect on cooking time of storing dry beans at different levels of moistures and temperatures. The Laboratory has developed a dehydrated powdered table bean product which appears to offer opportunity for considerable success; Dr. Murphy is working on the problem of flatulence in beans.

A great deal of work is being done by Dr. G. O. Kohler at the Shell Laboratory on the effect of estrogen-like products on animals. It is quite possible some cattle breeding problems are caused by this product in some legumes in certain stages of growth.

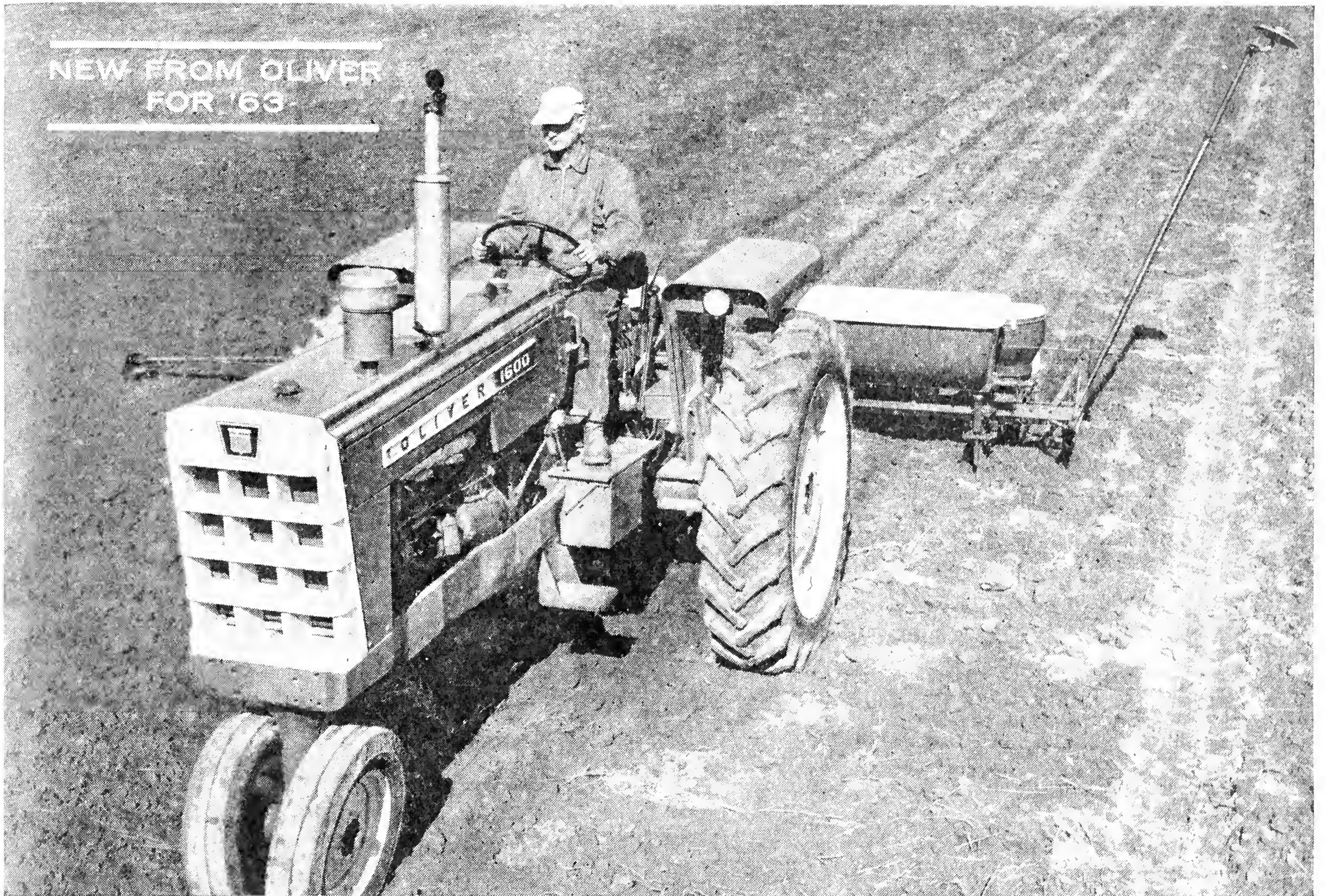
Tomato Harvester

Bernell Harlan has a large farming operation in Woodland, California, about 15 miles northwest of Sacramento. He grows 350 acres of tomatoes, 350 acres of sugar beets and about 800 acres of alfalfa and millet for seed.

Harlan purchased a tomato harvester a year ago. The first year, with one picking, yields averaged 17 tons per acre. In five years, he expects that between the improvement of the new tomato variety and what they learn about it, they should approach 40 tons per acre—his yield this year was 38 tons per acre.

California is a leader in the development of varieties of crops for an important reason. This is the principle of concentrating their research on a variety that matures all its harvested portions at about the same time. It was applied first to cotton to take thousands of acres away from the South and is now being applied to tomatoes. With this objective, the growers, machinery people and processors can effectively cooperate to reach their goal much quicker.

NEW FROM OLIVER
FOR '63



New 1600 tractor is available in Row-Crop, Row-Crop Utility, Wheatland models. Choice of gas, diesel or L-P gas.

With the new OLIVER 1600 15 MINUTES SHOWS YOU

You'll know it from the moment you swing aboard the new 60 H.P. 1600,* adjust its new telescoping steering wheel to your own measurements, and settle back in Suspension-aire seating comfort. And while you're there, try the new tilt-up steering wheel for stand-up driving without strain.

You'll *hear* the difference in performance when you start the new high-compression engine and feel the smoothness of Oliver 6-cylinder power, with machined combustion chambers that wring more go from every gallon.

When you put the new 4-5 plow 1600 to test under

load, you'll really spot the difference. Here is rugged, smooth-working Hydra-Power Drive with 12 shift-on-the-go speeds forward. Pull the knob and you'll feel the smooth, instant increase of up to 36% more pulling power that takes you through the tough spots. You'll see the difference in Oliver's 3-point hitch with double feed-back draft control, engineered to prevent deep-shallow variations. And the patented "Hydra-lectric" system gives you push-button control of implement settings.

See your Oliver dealer. Oliver Corporation, Chicago 6, Illinois.



NEW 540 PLANTER...unmatched for accuracy and convenience

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*Maximum corrected PTO H.P. (gas), manufacturer's estimate.

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With tilt-up concrete, walls start out like floors—formed and cast right on the ground. A simple rig and a farm tractor tilt them into place in minutes. Solid concrete walls give real protection to animals and machinery. No worries about fire, rodents or weather—no problems with rust, rot, painting or other costly upkeep. Write for informative free booklet.

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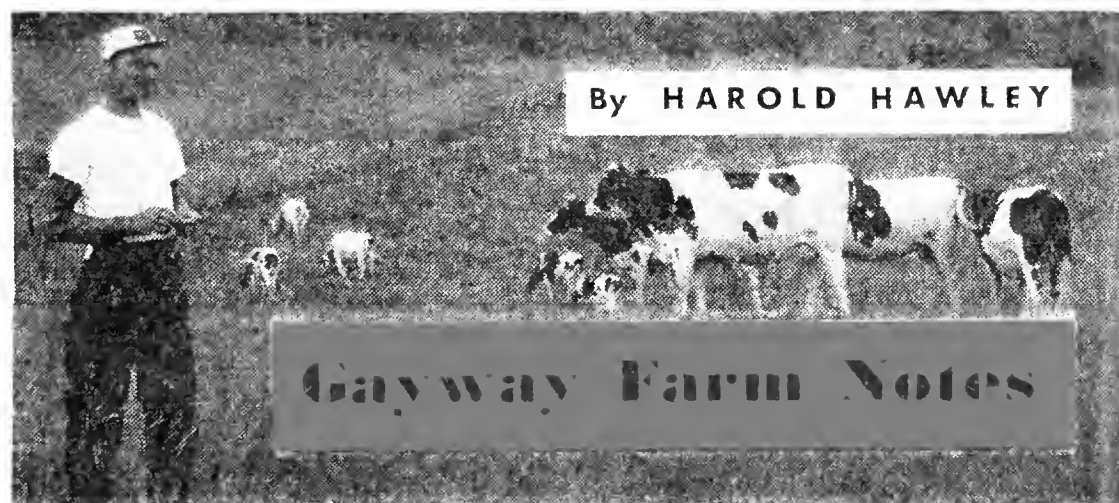
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WHEN A FRIEND NEEDS A FRIEND

THROUGH the years, one of our good friends has been the Agricultural Extension Service. This has mostly been personified by the various young men who have served as county agricultural agents, or associate or assistant agents. To them and to the whole Extension organization we—and I mean all of us—owe a tremendous debt.

Many have marveled at the rapidity with which new ideas are accepted and put into practice in today's dynamic agriculture. Who disseminates the new information? The Extension people, of course!

I think I shall never forget the rather hopeless task of a county agent we met in Mexico. Except for a few large landowners, most of the farmers in his territory were illiterate. Have you ever visualized how one goes about his job of helping people with their farm problems if he can't send them a notice of a meeting—or a letter telling about the latest treatment for controlling blight or whatever? Well, sir, this agent's choices were these: work with the few, literate, educated people who needed him least (but still needed him) or work with a few of the others on a word of mouth basis—and hope that they would pass along the information. No wonder progress is so slow in some places!

Danger Ahead

It now appears that the effectiveness and the objectivity of the Extension Service—of our good friend—is being endangered. The Secretary of Agriculture proposes to enlist Extension to supplement and assist the "action agencies" in "selling" the government agricultural program.

There can be little doubt that this will lead to a real conflict of interest. An educational institution must, of course, enjoy freedom to speak out as the facts indicate. Certainly on a controversial matter such as the desirability of participating in a government program, their "advice and counsel" will hardly be objective or valuable if the orders they must follow dictate their answers.

We saw a small illustration of what can happen two years ago when some of our agents were doing a pretty good job of persuading people they should "go for" the feed grain program and raise sweet corn for silage as a way to beat the program. The conviction on the part of some farmers that the agents were little different than the ASCS people as regards the program set up a barrier between them and the agents even on other matters. I trust it is unnecessary to spell out the irreparable damage that would be done to a fine and useful part of our whole educational system if we had to start examining the letters from our county agents with an eye to detecting what was fact and what was propaganda.

It irks enough to have our tax

dollars spent to send someone around to try to sell us on the merits of participating in a government program—but worse, and more serious, would be the use of the Extension Service for this purpose.

I'm sure the Dean of the College of Agriculture and the Directors of Extension are aware of all this and more. But, even so, I suspect they would feel stronger in resisting this encroachment if our letters to them assured them we are with them on this issue.

PENNSYLVANIA BUILDINGS INTRIGUE

I'm convinced farmers miss much when they travel in the cities. After all, one pretty nearly has to be in the business to be keenly aware of the little niceties and variations characteristic of an industry or of a community. So it is with farming! One of the most compelling questions which confronts me every time I leave home is to explain the variations in type of farming and in style and architecture of buildings.

On a recent trip to Hershey, Pennsylvania, in company with some other farmers and farm-minded people, as we traveled along, we were constantly impressed by the local differences. Most striking, perhaps, was the rather high percentage of land in corn—yet the presence of only one small silo on many of the farms. Surely where corn obviously does well, as evidenced by the many well-filled cribs, one would expect more silage to be made.

The overhang of the haymow over the barnyard strikes me as a pretty good idea, especially if one is thinking of feeding some young stock outside. Obviously, many of the barns we saw were designed with this in mind. There were little doors along the side of the barns that could be opened to throw out hay. Some of the paved barn lots with the overhanging mows, and the "ells" on the barn or the other small buildings, surely made a nice place to winter stock that did not need to be inside for milking.

Everyone looked forward to seeing the "hex" signs on the barns, and of course were not disappointed. Some of these have definite decorative effect. Even more impressive to me was the evidence of good care and pride in property. As I look about me here at home I see far too much evidence of a bit of fixing done in a hurry, of fences slack and sloppy, of buildings that could stand another coat of paint. The countryside we saw down through central and eastern Pennsylvania almost shouted good care. Machinery was stored, buildings were not only well painted but on good solid foundations, with doors closed, windows in fences proper, etc. I came home asking myself, how do they find time

(Continued on Page 21)



FIRST STEP TO PROFITABLE CORN YIELDS... PLOW DOWN NITROGEN

Corn is a nitrogen-hungry crop. It takes about 10 pounds of nitrogen to grow a ton of silage...2 pounds to grow a bushel of grain. When, therefore, you're aiming at 20 tons of silage or 100 bushels of grain per acre, there must be a minimum of 200 pounds of nitrogen available to feed the crop to maturity.

Not all in the row

It has been generally established, at the various agricultural colleges, that the top limit of nutrients that can safely be applied in the row—even with band placement—is about 400 pounds of 10-10-10 or its equivalent. Of course some starter fertilizer, rich in phosphorus and ammonium nitrogen, is needed to get the plant off to an early start. If, however, too much is applied, seed may be damaged and stand reduced. The obvious answer is to plow nitrogen down before the crop goes in.

How much to plow down

Most of the nitrogen needed (plus other nutrients) can be applied just ahead of plowing. Or, the nitrogen can be applied and disked in when the land is being fitted.

The way to determine lime, phosphate and potash needs is through a soil test. Nitrogen needs, however, should be based on your cropping practices, use of manure...and the yield you're shooting for. The handy chart below will guide you in calculating your needs for a goal of 20 tons of silage or 100 bushels of grain per acre.

Added plow down benefits

There are important added benefits from having your nitrogen distributed through the plow layer *before* the crop goes in. One is the aid nitrogen gives to soil bacteria in decomposing the crop residue or cover crop you are plowing under.

These bacteria require nitrogen for food and they "feed at the first table." Unless there's plenty for both the bacteria and the growing crop, the crop will go hungry. Ultimately these bacteria die and the nitrogen in their bodies becomes available as plant food.

Plowing nitrogen down puts it in the root zone where it is available at all times...of vital importance when hot, dry weather strikes.

This is the year to set your sights on profitable yields. Take the first important step toward reaching those yields by plowing down nitrogen.

AMERICAN CYANAMID COMPANY
PRINCETON, NEW JERSEY

APPROXIMATE RATES OF NITROGEN TO PLOW DOWN FOR CORN
FOR YIELD GOALS OF 20 TONS OF SILAGE OR 100 BU. GRAIN PER ACRE*

PREVIOUS TREATMENT	APPROXIMATE RATE OF ACTUAL NITROGEN PER ACRE**	
	GRAIN	SILAGE
LEGUME ROTATION — plus 8 to 10 tons of manure	36-54	107-134
LEGUME ROTATION — no manure	54-80	126-161
CONTINUOUS CORN — 8 to 10 tons of manure	72-108	144-188
CONTINUOUS CORN — no manure	107-144	180-216

*These rates assume adequate plant populations, weed control and other good management practices are being followed and that lime, phosphate and potash levels are maintained according to soil test. In addition, apply a complete fertilizer at planting in sufficient amounts to supply 20-30 lbs. N; 40-60 lbs. P_2O_5 ; and 40-60 lbs. K_2O . Apply in bands two inches to side of seed and two inches

below. If sufficient potash is plowed down or present in the soil, only a nitrogen and phosphate fertilizer such as AERO Phos® 18-46-0 need be used as a starter.

**One 80 lb. bag of AERO Urea contains 36 lbs. of actual nitrogen. One 80 lb. bag of AEROPRILLS contains about 27 lbs. of actual nitrogen.



Either AEROPRILLS® ammonium nitrate (33½% N) or AERO® Urea (45% N) are ideal for plow down this spring.





DEKALB 57

Grain or Silage



This relatively new variety has met with much popular favor both for silage and for grain. It's bred for high grain yield and high total tonnage per acre. DeKalb silage tests showed DeKalb 57 to have a higher sugar content than all other Varieties with which it was compared. Maturity similar to DeKalb 59.

DEKALB 238

Full Season Silage
10 days later than 57



DeKalb 238 has been a North Central Corn Belt favorite for 2 or 3 years because of big yields and strong stalks. New York farmers will find it to make good yields of grain-rich silage, high in TDN (Total Digestible Nutrients) per acre. Its 10 days later maturity gives more stalk height and more tonnage of both grain and fodder.

DEKALB 415a

Full Season Silage
15 days later than 57



Another new DeKalb hybrid with leafy stalks of medium height, thick, deep-kerneled ears, and a maturity a few days later than DeKalb 238. Its freedom from excessive height means a high percentage of grain to fodder. DeKalb field trials showed that 36% of the green weight was ears.

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DEKALB CORN

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Science Shrinks Piles New Way Without Surgery Stops Itch—Relieves Pain

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Most amazing of all—results were so thorough that sufferers made aston-

ishing statements like "Piles have ceased to be a problem!"

The secret is a new healing substance (Bio-Dyne®)—discovery of a world-famous research institute.

This substance is now available in suppository or ointment form under the name *Preparation H*®. At all drug counters.

Hard-Nosed Plowshares

Whether you hire it done or do it yourself, hard-facing plowshares can save you dollars.

By FRED G. LECHNER*

IT IS BEST to hard-face a plowshare when it is new; a dull share must be sharpened before it is hard-faced. If the edge and point have worn away excessively they must be rebuilt—parts for such rebuilding are available on the market. A skilled welder can make repair pieces out of spring leaves from a car or truck, but be careful to maintain the correct curvature of the cutting edge and the point so the share will have the right amount of "suction."

Ordinary mild steel electrodes can be used to electrically weld on the repair pieces, but the carbon content in the plowshare is high enough to cause trouble with under-bead cracking when such electrodes are used. The job can be done better with a low-hydrogen, iron powder fluxed electrode. The AWS, ASTM code for this electrode is E7018. Its cost is only about two cents per pound more than ordinary mild steel electrode.

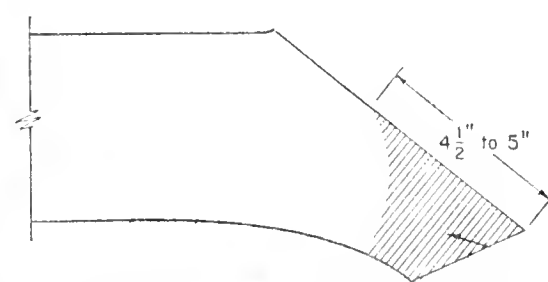
Selecting the Material

Several things are involved in selecting a hard-facing material—kind of soil to be plowed, presence of rocks, method of application of the material (electric arc or oxyacetylene) and cost. Primarily, the hard-facing material must be resistant to abrasive wear.

Tungsten carbide materials are usually most resistant to wear of this type. However, because they leave a rough surface which hinders scouring in loam or clay soils, they are normally recommended for sandy soils. They have another limitation—they should not be used in highly rocky soils because they are not sufficiently impact-resistant. Although the cost of tungsten carbide materials is the highest of all that may be considered, their long-wearing ability normally makes them the cheapest long-run choice for sandy soils.

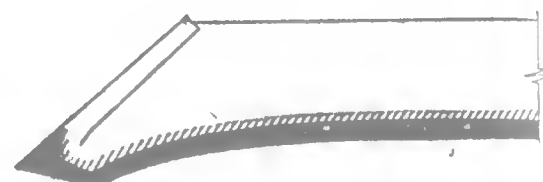
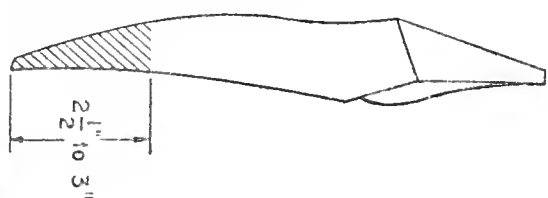
Austenitic high-chromium iron base materials are usually a good choice for most plowshare hard-facing. They are highly resistant to

* Agricultural Engineering Department, Cornell University



Hard-facing material applied to top and edge of plowshare.

An oxyacetylene torch works best for thin edge of plow.



A 1/16" thick layer of material applied to the underneath side.

abrasive wear caused by soil, and they will scour. Elements other than chromium are also used to make iron base hard-facing alloys. Since this type alloy can be made with different amounts of various elements, a large selection is offered by manufacturers, and choosing the correct one may seem to be a tough decision.

A selection must be made from a variety of such materials considerably different in cost and abrasive-wear resistance. So far, no fool-proof selection guide has been devised; your best bet is to experiment with several choices. In this way you can find a material by trial and error that will best fit your job conditions. Remember that a cheaper material, like a high carbon or austenitic manganese, may be a tempting choice, but it will not wear long enough to be profitable.

Applying the Material

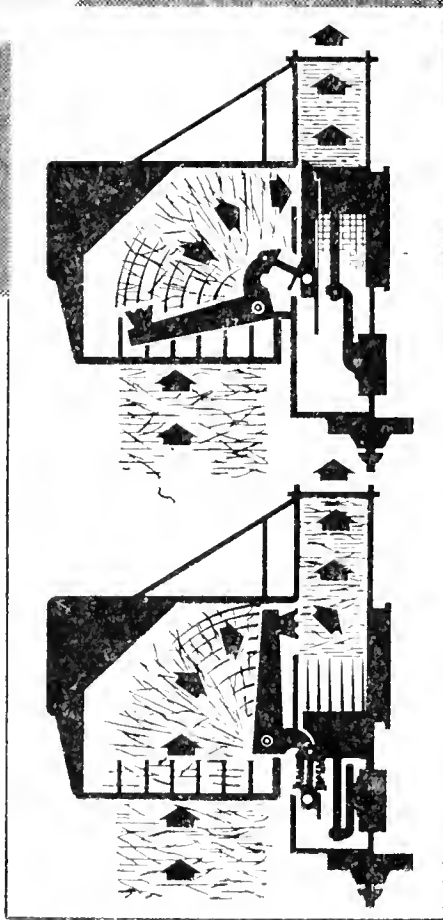
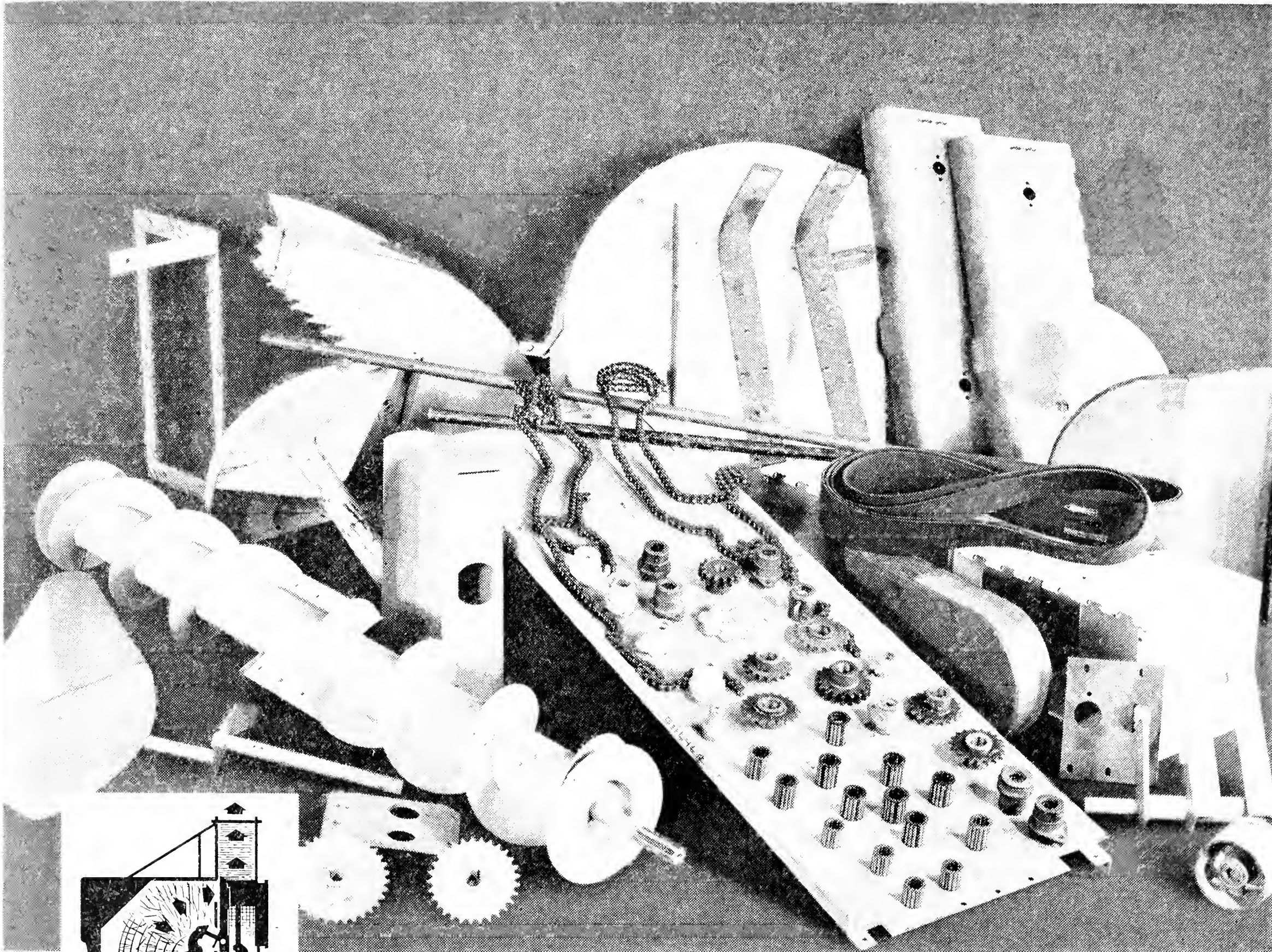
Apply the hard-facing material on the side of the edge where the greatest wear would normally occur. The side which is not hard-faced will wear faster, thus keeping the edge sharp. Usually it is best to apply the hard-facing material on the underneath side of the edge and point of the plowshare. The point may be further protected by applying a material on top which is less wear-resistant than that applied to the underneath surface. The material on top will wear faster, thereby keeping the point sharp.

The thin edge of the plow is hard-faced easiest by applying a rod or tube form of hard-facing material with the oxyacetylene torch. It is difficult to work to a thin edge with the electric arc welder; however, the point of the share, being thicker, can be hard-faced with the electric arc welder. If an oxyacetylene torch is not available, a powder or paste form of hard-facing material can be applied to the thin edge using a twin carbon arc torch for heat, but even then it will be difficult to get the plowshare hot enough.

The directions from the manufacturer should be followed in applying the hard-facing material selected. Essentially, though, a smooth deposit about 1/16 inch thick and 1/2 to 3/4 inch wide is usually needed along the underneath surface of the edge and point. The share should be heated only hot enough for the hard-facing material to braze on — too much heat causes mixing with the steel, and distortion may result.

When material is applied to the top of the point it is important to use no more amperage than is absolutely necessary to make the electrode flow. This will keep to a minimum the mixing of hard-facing material with the base metal. Usually an area about 4 to 4 1/2 inches from the cutting edge of the point on the top and edge surfaces is all that needs to be hard-faced.

With experience, the welder will learn to recognize more specifically what part of the plowshare needs to be protected with hard-facing material.



These top-view diagrams show the smooth even flow of hay through the 200 baler . . . the reciprocating action of the direct-connected sweep fork and plunger. Diagram at top shows the sweep fork forward ready to sweep a fresh charge of hay into the bale chamber while the plunger is extended, compressing the previous charge. In the second diagram, the plunger is retracted while the sweep fork delivers a fresh charge of hay into the chamber.

WE ELIMINATED OVER 50 PARTS IN THE CASE 200...

to give you a baler that's simpler, smoother, gentler

Gone are the bulky gears and long, awkward shafts and chains . . . the "rock-and-roll" surging common to high-speed baler operation. Visit your Case dealer and examine the simplified power train of the Case 200. Note the fewer moving parts . . . the straight-in-line short-coupled drives. See how the direct-connected plunger drives the sweep fork—it can't get out of time!

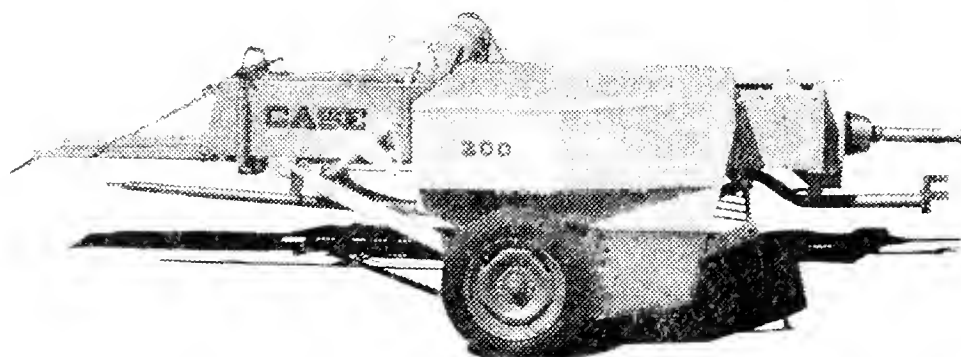
Fewer parts and smoother action mean . . . simpler operation . . . time saved . . . reduced maintenance costs.

And the Case 200 baler makes better feed.

The sweep fork moves hay from pickup to bale chamber in a single, leaf-saving motion. There are no harsh, leaf-stripping augers . . . no leaf-shattering "kickers" to lower hay quality.

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If you bale as little as 2500 bales a year, it will pay you to invest in a Case 200. Ask your Case dealer to demonstrate one.



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COMMERCIAL FRUIT PLANTINGS

THE NEW YORK Crop Reporting Service reports that on January 1, 1962, New York State had approximately 99,000 acres of commercial tree fruit. There were about 76,000 acres in apple orchards, 8,750 acres in sour cherries. Peaches and pears were about equal, 4,770 and 4,720 acres respectively; and there wasn't too much difference in the acreage of sweet cherries and plums which accounted for 2,580 and 2,450 acres.

Western New York counties grow three-fifths of the State's tree fruits. In actual numbers of trees, there were about 2,700,000 apple trees, grown mostly in Wayne, Ulster and Niagara counties. Sour cherry trees

amounted to 758,000 (Wayne, Orleans and Niagara counties); Niagara, Monroe and Ulster counties ranked highest in peaches, with 411,000 trees; and 404,000 pear trees were grown in the counties of Wayne, Niagara and Columbia. Sweet cherry trees totaled 139,000, and there were 207,000 plum and prune trees.

In the western counties the leading apple variety was R. I. Greening, followed by McIntosh, Rome, Delicious and Cortland; in the eastern counties the Maes led, while other varieties were Delicious, Rome, Cortland, and Golden Delicious. Wayne led all counties in the State in number of trees, having slightly over 693,000.

Among the peaches Elbertas led in number; others were Halcaven,

Golden Jubilee, Red Haven and Jerseyland. Bartlett pears topped the list for popularity, accounting for 75 percent in the western counties and 56 percent in the eastern. Other varieties were Bosc and Clapp's Favorite.

Copies of the survey can be obtained by writing to the New York Crop Reporting Service, Albany 1, New York.

OLD FAVORITE APPLES

THE WORCESTER County Horticultural Society, 30 Elm Street, Worcester, Massachusetts, operates an experimental orchard of apple trees that once ranked high in popularity, such as Alexander, Black Gilliflower, Ben Davis, Early Harvest,

American Agriculturist, March, 1963

Gravenstein, Grimes Golden, Maiden's Blush, Nodhead, Red Astrachan, Sops of Wine, Sweet Bough, Tolman Sweet—and so on and on. Isn't your mouth beginning to water?

Anyway, if you are interested in getting scions of some of these old varieties, write to the Society for further information. The price is \$1 for 1-5 scions, \$2 for 6-12, postpaid, either all of one variety or a mixture of several. Add 50 cents to your check if you would like to have them sent airmail.

The Society tells us that other nurseries, too, have some old varieties in stock. These include Baum's Nursery, R.D. 1, New Fairfield, Connecticut; Eben Nursery, R. F. D. 1, Potsdam, New York; Converse Nursery Company, Amherst, New Hampshire; Henry Leuthardt Nursery, King Street, Port Chester, New York; and Wyman's Framingham Nursery, Framingham, Massachusetts.

NEW APPLE VARIETIES

THE NEW YORK State Experiment Station at Geneva, New York, has announced three new apple varieties, Wayne, Spigold, and Niagara. Credit for these varieties goes to the late Leo Klein, who was research specialist in the Department of Pomology at the Station.

Wayne (Northwestern Greening x Red Spy) is attractively colored, with firm flesh and a fresh flavor very similar to Northern Spy. It matures about the same time as Cortland, and is excellent both for processed slices and sauce. It blooms late, about with Rome, and is a good pollinator.

Spigold (cross of Red Spy and Golden Delicious) is also a dual purpose type which matures about with Golden Delicious. It is triploid so has no value for pollination.

Niagara (Carlton x McIntosh) is very similar in appearance, flavor and tree habits to McIntosh, but can be picked two weeks earlier. It is believed that Niagara will give growers an opportunity to sell mature apples of the McIntosh type two weeks earlier, instead of starting off the season with immature Maes.

Dates To Remember

March 5, 6 & 7 — Three day Herd Management School at University of Massachusetts.

March 12 — Regional Dry Bean Meeting, Farm and Home Center, Auburn, N. Y.

March 13 — Regional Dry Bean Meeting, Grange Hall, Linwood, N. Y.

March 16 — Connecticut Foundation Dairy Calf Sale for 4-H and FFA members, Ratcliffe Hicks Arena, University of Connecticut.

March 20, 21 — Annual meeting, American Dairy Association, Congress Hotel, Chicago.

March 21 — Agricultural Leaders' Forum (formerly Agricultural Progress Days), Cornell University, Ithaca, N. Y.

March 23 — Pennsylvania State University annual "Open House" for young scientists.

Mar. 26 — Poultry and Egg National Board Annual Poultry Products Booster Day, Henry Hudson Hotel Ballroom, New York City.

March 29, 30 — 32nd annual Little International Livestock and Horse Show, Ratcliffe Hicks Arena, University of Connecticut.



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Start your spray program right...with Guthion. Right now is the time to order from your dealer.



CHEMAGRO CORPORATION

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Gayway Farm Notes

(Continued from Page 16)

for all of that? I guess the obvious answer is that many of them haven't expanded as much as have some around here and are doing a neater job of handling what they have. Possibly there is less money connected with the smaller business, but there certainly must be a real pride and satisfaction in having everything so shipshape.

DECISION TIME AGAIN

Along about now, not at corn planting time, is when most of us must decide how we will handle the crop this year. The decisions must be made soon if they involve any change in machine needs, lest when we are ready to go the machinery isn't.

I've said before that Atrazine looks like the answer to our weed control prayers—but—it's not an open-and-shut case in our particular situation. If our land was level—and if we didn't depend on rye grass for winter heifer pasture—we would simply put on about 2½ pounds of Atrazine. However, erosion can hurt us some years if we have no cover crop. Rye grass and corn stalks will winter 35 to 40 heifers every winter for us so we hate to give up the rye grass. It is pretty nearly certain that with a normal application of Atrazine the rye grass will not do much.

It's equally certain that 2,4-D and cultivation can't give the all-season control that we need. It's a cinch none of us can afford to give up water and plant food to weeds.

What are the alternatives?

A band spraying of 10 to 12 inches with Atrazine would assure clean corn in the row. Then a post-emerge shot of 2,4-D plus a cultivation when the corn is 2 to 2½ feet tall (accompanied by the rye grass seeding) would give pretty good weed control. The rye grass would, of course, grow on the remainder of the row—giving us two-thirds of the normal pasturage, and giving support for the machinery at harvest time.

This is admittedly a compromise; possibly in our situation the best bet. For someone else, it may be Atrazine over all the field, shooting for maximum weed control and top corn yields.

Here is another little variation that is also in the guesswork stage. There is not enough evidence to guide as to the relative resistance of winter wheat, barley, rye, and rye grass to Atrazine. We plan to try a few side-by-side passes with each of these crops (any one of which would be satisfactory for winter cover and pasture) to see if there is a significant difference in their tolerance to Atrazine.

I would be most happy to hear and to pass along any experience some of you may have had with this problem.

HELP!

Every heifer calf we plan to raise gets ear-tagged promptly. Then a spell later she gets a vaccination tag—a double identification. The only trouble is that about two or three a year turn up at vaccination time with no tag. If there is only one at a time there is no problem; if two or more, we never know for sure which one was out of what cow. I suppose two ear-tags at birth would reduce the likelihood of this happening but there must be a better answer. Do you have it?



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...and faster milking means a healthier, more productive herd!

New fast-milking De Laval Milkers now milk 25% faster than other milkers...save you 10, 20, 30 minutes or more every milking.

This was proved by 3 years of research and tests on 2700 cows, and 2 million milkings, at colleges, De Laval's Research Farm and dairy farms coast to coast (results on request).

All tests also showed dramatic improvements in udder health. For example, on test farms in California there was an average

40% improvement in udder health...as proved by CMT tests. Faster De Laval milking is healthier and safer, and there is evidence that fast milking can increase milk yield.

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DE LAVAL

MILK FEVER

By DOUGLAS N. STERN*



ONE OF THE most serious diseases of dairy cattle is improperly named. The cow with so-called milk fever does not have a fever at all. In fact, shortly after the onset of the disease, the animal's temperature begins to fall. As the process continues the animal becomes unconscious. Death follows soon after if treatment is not instituted promptly. A more definitive name for this disease

is parturient hypocalcemia, indicating that there is a lowered calcium level in the blood stream of the cow at the time of calving.

Milk fever is not caused by bacteria, but rather by faulty metabolism or functioning of body processes. High producers in the herd and those in the best physical condition are most often affected. This fact would indicate that the disease is not normally caused by a lack of calcium in the diet but rather by the inability of the animal's body to

translocate and use the calcium already present. The disease occurs most often between 24 and 72 hours after calving, although it has been known to occur before calving. Occasionally it occurs two to three weeks following delivery of the calf. First calf heifers are rarely affected; ninety percent of the cases in one survey occurred in animals from 5 to 9 years of age. Animals that have had one attack are quite likely to be similarly affected at subsequent calving periods.

The extreme demand for calcium and other minerals at the time of calving on the part of a heavy producer can be better visualized if one considers the following facts. Milk contains five times as much potassium, ten times as much phosphorus,

and thirteen times as much calcium as is found in the blood stream from which it must originate. There is as much calcium in two quarts of colostrum milk as is found in the entire blood system of a cow at any one time. The increased need for nutrients during the last few weeks of pregnancy when the fetus makes its most rapid growth, and the sudden increase from 0 to 25-40 pounds of milk several days after calving, is a source of great demand for calcium.

The basic reason why the body cannot properly use the calcium already present is not known. All current treatments are aimed at supplying this mineral to the circulating blood stream. There are temporary measures to supply calcium until such time as the animal's system can take over its proper function. If this does not occur the animal will relapse. Methods include the intravenous injection of some calcium product such as calcium gluconate, the inflation of the udder with air to prevent calcium from leaving the blood stream and forming milk, the use of a low calcium-high phosphorus diet to stimulate the parathyroid gland which regulates calcium use in the body, and the use of massive doses of Vitamin D beginning five to seven days before calving. Vitamin D mobilizes and increases the amount supplied to the blood stream, keeping it above the critical level during the milk fever period.

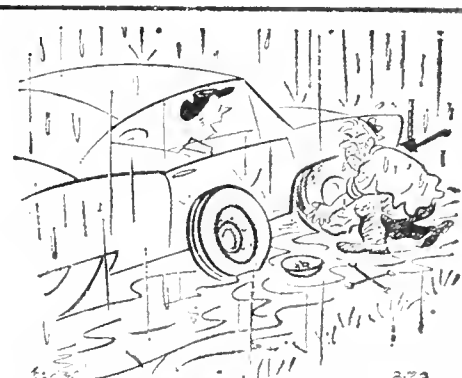
Cows with a past history of milk fever might be injected with a calcium product by your veterinarian just after calving. The same animals may be fed Vitamin D no more than five to seven days previous to calving. For this to be effective one must know rather accurately when the cow is to calve, since over-dosing with Vitamin D can cause toxicity. Do not strip the cow out if she is suspicious, but milk just enough to relieve undue pressure on the udder. At the first suspicion of weakness or lack of appetite in a milk fever-prone cow, call your veterinarian. Don't wait a day or so. If treatment can be instituted before the cow goes down, the animal has a much better chance of continuing her production.

FARM TV PROGRAM

ON SUNDAY, March 10, from 4:30 to 5:00 p.m. (EST), the ABC television network will carry a program entitled "What is Happening to Our Farm Families?" It is designed to take a look at the farm families of our country, their accomplishments, hopes, and problems developing from a rapidly changing and complex agriculture.

The program's sponsor, American Cyanamid, hopes that it will help in interpreting agriculture to urban people, as well as offer guides to a successful future in agriculture and in the growing field of agribusiness.

Dr. Joseph Bohlen and Dr. George Beal of Iowa State University will carry the ball on the program.



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NYABC AI Proved Sires approved for regular service lead again in the January 1963 Cornell AI Daughter Level. This report evaluates and ranks AI Proved Sires used by all breeding organizations serving N.Y. dairymen. It shows:

MORE.....TOP BULLS

Comparing all studs, NYABC has the greatest number of top AI Proved Sires available for use by dairymen in this area.

MORE.....MILK

Ranked on milk production, 9 of the top 10 Holstein sires available are in service at NYABC. These 9 NYABC sires each have a milk superiority over the breed DHIA average of +963 lbs. or higher.

Also ranked on milk production, 3 of 4 top Guernseys, 4 top Jerseys, 3 top Ayrshires and the only 2 Brown Swiss AI Proved sires shipped regularly in the area are in service at NYABC.

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MORE.....PROFITABLE

You're dollars and cents ahead with NYABC, too. The average VALUE OF PRODUCT of tested daughters of all NYABC AI Proved Sires approved for Regular Service is well above the respective breed averages.

MORE.....REASONS

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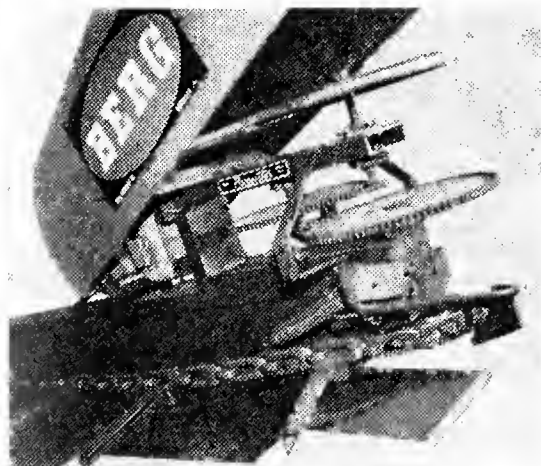
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126 Mayfield Street Worcester, Mass.

A COUNTRY BANKER—

(Continued from Page 12)

a larger proportion of long term financing will cut monthly payments, but I'm still old-fashioned enough to encourage farm families in our area to have a goal of being debt free someday and thus to pay them off as rapidly as is reasonable.

As for collateral, we take seriously our responsibility to our depositors for the safety of the funds they entrust to us. However, we believe that we must take normal risks in order to really serve the people of our area. A farmer's capacity to obtain credit today depends less on his collateral than in years past—and more on his record as a manager. The secret is to make a reasonable loan, then keep track of it, rather than just sit back and expect the payments to roll in.

Does this mean you supervise management of your farm borrowers?

No, at least not in the same way FHA does. However, we believe it's our job to help on farm management decisions when asked, and to be generally aware of what's happening on the farms we serve. On December 31 each year, we request a financial statement from every borrower of more than \$1,000. During the last 5 years, we've gotten more and more income and expense figures from our borrowers. These figures are becoming even more important because a farmer has become so vulnerable to losing his shirt in a hurry if something goes wrong in the business.

Incidentally, we think that FHA often provides a real service by lengthening out the payment period so a family can swing their payments. Of course, it's sometimes hard to understand government purchases of surplus farm commodities on one hand and more liberal credit for greater farm production on the other.

What effect would farm commodity supply management programs have on rural banks?

Many things will need ironing out in any legislation, or farm real estate values will be seriously affected. Philosophically, we resist government intervention, but it looks as though farmers need some way to control their production.

If a person comes to you for a loan, what should he bring with him?

First of all, a fairly specific plan of the purpose of the loan—why is the money needed? Secondly, a financial statement listing everything owned (assets) and everything owed (liabilities). An operating statement showing business income and expenses for the preceding year will complete the picture.

Of course, if the person is new to the community, he should have a list of a few credit references from the area of his previous residence. Naturally, any borrower new to us who wants a sizable loan will be visited at his farm by a representative of the bank before final action is taken.

JUST FOR FUN!

By Russell Pettis Askue

We've followed in the paths of history, And visited each spot we ought to see. And now that all our homework has been done, Let's drive around the country just for fun.



"This is the
REAL FEED"

says Pennsylvania Farmer

DEKALB SUDAX BRAND
SX-11

FOR
GREEN CHOP

FOR
PASTURE

FOR
SILAGE



"DEKALB" and "SUDAX"
Are Brand Names
SX-11 is a
Variety Designation

E. S. Baney, Centre County, Pennsylvania, says:

"I planted SX-11 late when everything else began to dry up, hoping we could get rain, which never came on this crop. It is 21 days old and in the middle of the drouth in Centre County, I never saw anything grow like that in such dry weather. I am planning on planting more SX-11 next year. This is the real feed." (Above picture) James Baney and Douglas Baney look over SX-11.

Mervin Servin, Waterton, New York, says:

"Starting July 10th I green chopped 4 big loads of SX-11 a day for 13 days. I started my second cutting September 1. The regrowth was over 6 ft. With the drought conditions this year, SX-11 has been a life saver. I'll get my money back just by saving corn for winter feeding."

Bert M. Countryman, Delavan, New York, says:

"I planted Millet and SX-11 in June. My SX-11 is 3 to 4 feet taller than Millet. I'll get 30 to 40% more tonnage from SX-11 than Millet."

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Based upon the all-important need to better milk producers' income, these policies include:

1. Continued effort to provide alternative outlets for members' surplus milk. The Fort Plain manufacturing plant, now being operated and remodeled by C.A.M.P., Inc., a newly formed manufacturing cooperative, is a positive step forward in this direction.
2. Working for continued improvements in the Marketing Order.
3. Pressing for legislation needed to improve milk marketing.
4. Strengthened education and information programs to keep dairymen informed.
5. Continued cooperation with ALL marketing organizations on all problems of marketwide concern.

WE PLEDGE VIGOROUS ACTION TO MOVE AHEAD ON THESE AND OTHER POLICIES BENEFITING ALL DAIRY-MEN.



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MOVE AHEAD with a Cooperative Association of Milk Producers—over 80 cooperatives—united for improved milk marketing.

Grange Position on Milk

By HARRY L. GRAHAM*

NO INFORMED person questions the seriousness of the dairy problem. For ten years dairymen have been trying to eliminate the cost-price squeeze by increasing their production in a vain effort to reduce the unit cost of production. Despite this effort, and aided by a breakthrough in production techniques, returns to the producer have not kept pace with the costs of production.

Farm income in 1962 increased by one percent over 1961, but the cost of production increased by two percent. Like a dog chasing his tail, income doesn't catch up. So, in a very real sense, the present surplus is caused by the low price, which in turn causes a low income, instead of a surplus causing the low price.

Since 1952, farm prices have been below parity. Most of the time, the income of dairy farmers has been about 80 percent of parity, but in October it dropped to 76 percent, the lowest level since June 1939. During this period, costs of production have increased more than 14 percent, while the uniform price for milk has dropped 10 percent from \$4.57 in 1952 to about \$4.10 in 1962.

Production Up

Despite the fact that increased production means a net loss, production in the Order 2 area has increased during 1960 and 1961 by 1,560 million pounds over the 1959 level. The net gain in gross income was \$27,397,900. However, it cost \$54,612,000 to produce that milk—the net loss was \$27,214,100. The gross income did not even cover the cost of feed. The predicted increase in production and decline in prices for 1963 indicates that dairymen will again take a substantial loss for their over-production.

Supply management programs in the past have largely attempted to limit production without solving the problem of total income. Supporting prices at a level far below parity and limiting production simply further reduces incomes already disgracefully low. The Grange has never approved such a program except as a temporary or emergency measure. It pointed out that fallacy of the approach in 1933, but in the interest of the national welfare and to help end the depression, it did not fight the program.

However, as early as 1924 the Grange was on record as favoring a two price approach to the farm problem, with the goal to be a parity of income for farmers. This is defined as being a return to the farmer for his labor, management, risk and investment which is in reasonable relation to that received for the

same factors in other segments of the economy.

The problem is to a very great extent a result of the comprehensive and extensive structure of government programs designed to protect the income of those in non-agricultural segments of the economy. Minimum wages and hours laws, unemployment insurance, labor relations laws, fair trade laws, tariff legislation, strategic stockpiling of mineral reserves, direct subsidies to industry, etc., are but a few of the protective devices thrown around labor and industry.

Every segment of the economy except agriculture is working under a supply management program which keeps them from producing enough to disrupt the market. Thus, they are able to command a substantially higher price for their products which are sold on the American market than they would receive if all were sold at world market prices.

The most important item in the farm problem, be it wheat, milk, corn or cotton, is that wages and prices established under this protective system automatically become the farmer's production costs. These costs do not respond in any noticeable way to either supply or demand. For instance, the four million plus who are presently unemployed have not reduced the cost of labor, and the price of machinery has not declined due to the restricted buying power of the farmers.

Thus we see that the problem is not one but three: (1) inadequate farm income due to low prices, (2) high fixed costs of production which continually increase but never decrease, and (3) surpluses accumulated by the federal government as a result of unsound farm programs and the attempt of farmers to reduce unit costs of production by producing at a greater level.

Bad Advice

In defense of the farmer, let it be said that he has been the victim of some very bad advice from those who advocate increased production as a cure-all for his ills without recognizing the factors over which the farmer has absolutely no control. Any other industry would have fired their economic advisors long ago for getting them into the present mess.

Of the three stated problems, the only one which will not respond to anything the farmer may do is fixed costs of production. The declining importance of the farm vote and the increasing importance of the labor and industrial influence upon legislation forever precludes remedial legislation in this field.

It is therefore to the other two problems that the Grange addresses

(Continued on Page 29)

* Northeast Field Representative to National Grange Master Herschel Newsom

CONTROVERSY!

American Agriculturist is deeply concerned with the problems facing Northeastern dairymen. We have run articles making a case for milk supply management, as well as others pointing out the dangers of such a program. It is our belief that, properly informed, farmers will arrive at the right decision on a controversial subject.

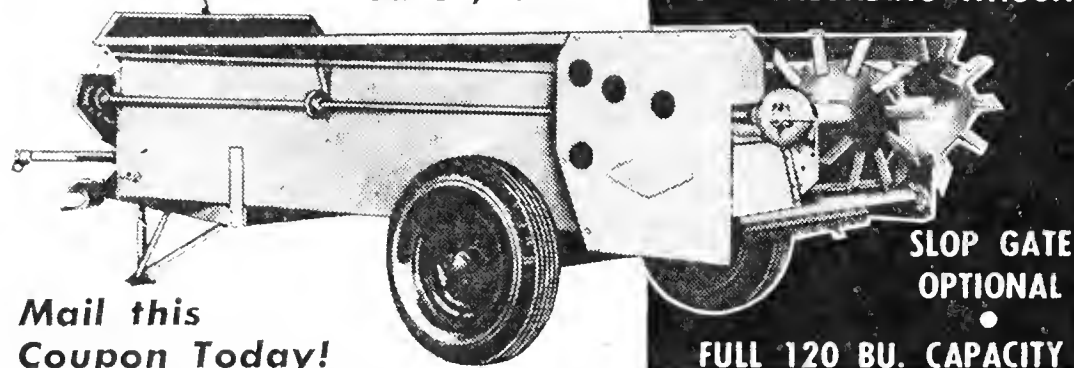
Harry Graham presents here what he believes to be the causes of present unrest among dairymen, and the philosophy of a dairy program approved by the New York State Grange and endorsed in principle by the National Grange. Ponder it carefully—consider its plus side—search for its minus—reflect on results. Future issues will contain viewpoints in opposition, as well as voices raised in agreement.

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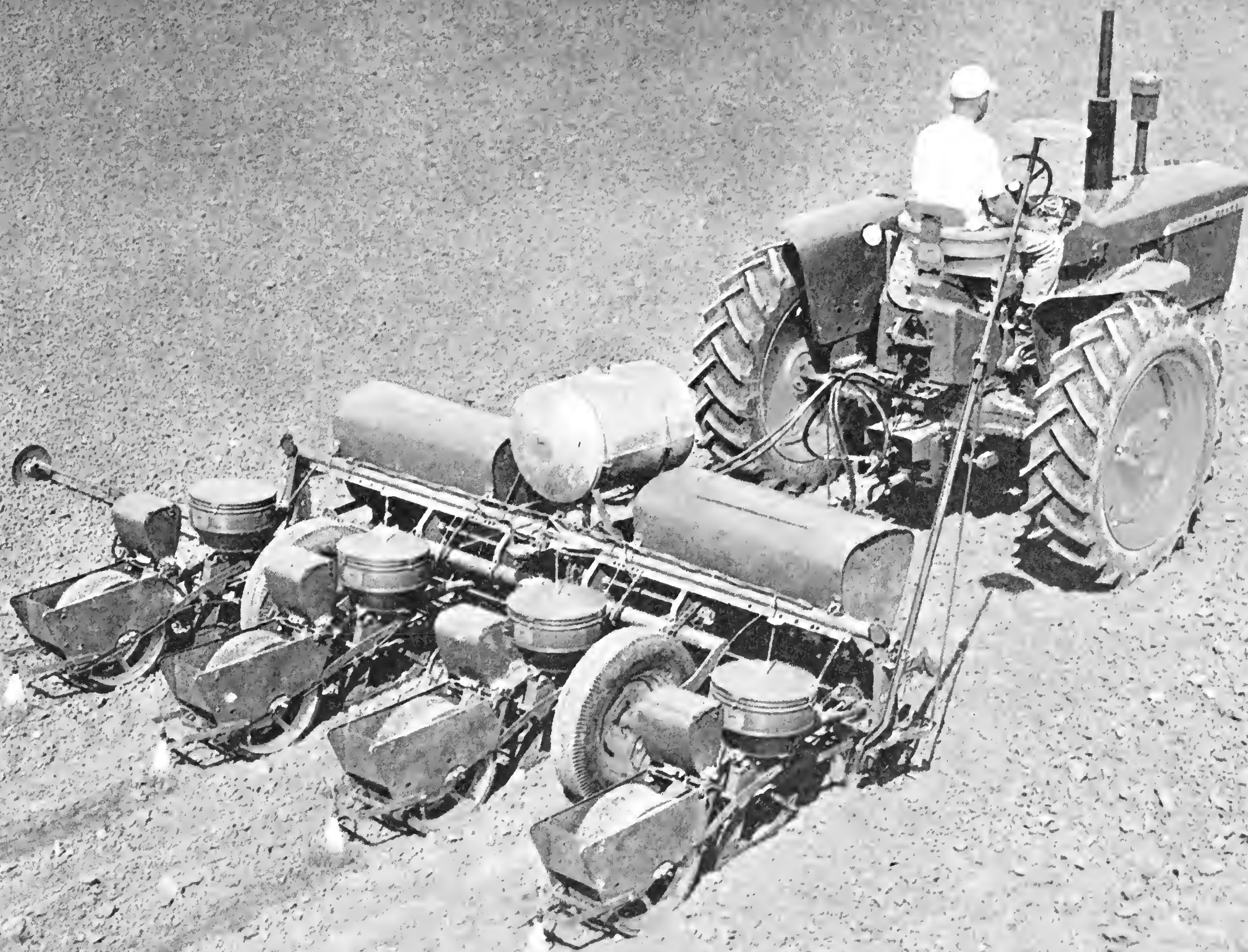
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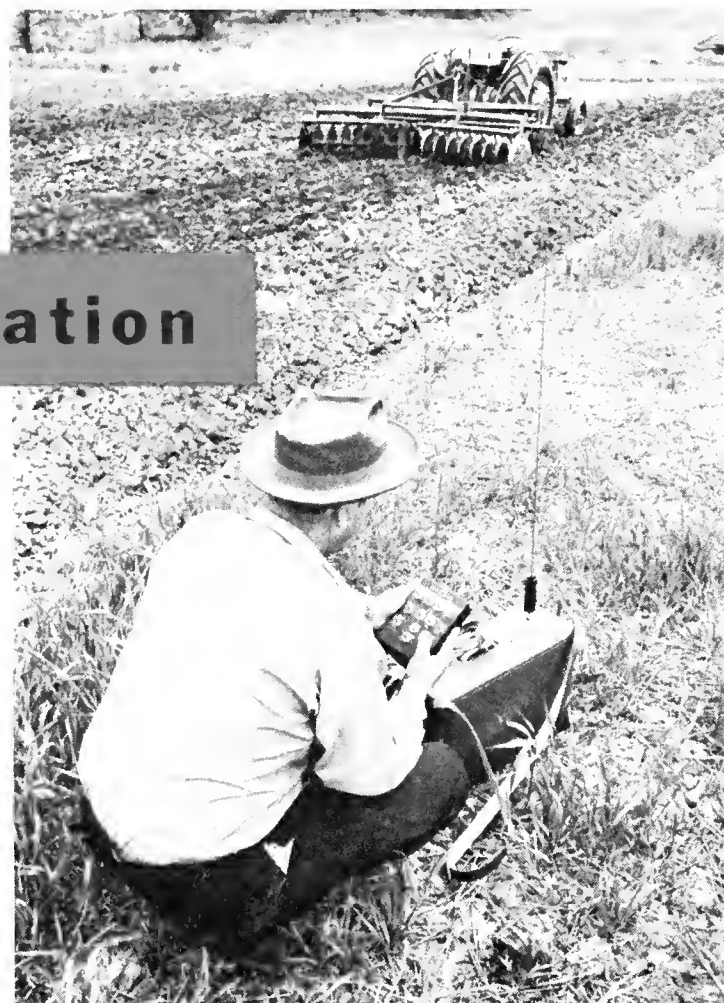


Geigy Division of Chemicals for Modern Agriculture

Mechanization

Facts and Figures

By TOM CLAGUE



Experiments are being made with remotely controlled tractors.

HOW can you know if you should mechanize your farmstead with some materials handling equipment? Very simply — when it will be more profitable! But deciding that isn't so simple.

How much labor you can save is a good yardstick for decision. A rough rule of thumb is that you can wisely invest about \$100 for every dollar's worth of labor that the equipment will save you in a month.

For instance, you can spend \$1,500 for a good, big-capacity, self-unloading wagon. Or you can invest about \$200 in a kit to convert a wagon

you already have so that it's self-unloading. And again, very possibly the one would be too expensive, while the other might be a very sound investment for you. It all depends upon how much labor you will save with the machine.

An Example

Let's assume that labor will cost you \$1.25 an hour—and let's figure that your time is worth the same as the labor you hire. In theory, if you can eliminate an hour of work for one man you then won't have to hire him. Or, if it's your own time,

you can put it to some other profitable use where it will be worth \$1.25 an hour. Thus, theoretically it might be possible for you to mechanize enough to eliminate a hired man from your operation, in which case you could justify a considerable investment.

Now let's suppose you were interested in spending \$200 to convert that wagon. How much labor would you have to save to make this a sound buy? If you figure depreciation and interest costs over a ten year life your annual cost would be about \$25. This means that you'd break even on the deal with a theoretical saving of 20 hours of labor per year—less than half an hour per week.

So, to evaluate whether this \$200 investment in labor-saving equipment is sound, you'd have to decide, first, whether you could save that half an hour per week. But that's only half of it. You also have to decide whether you can put the "saved" time to work for you, or whether it will merely become idle, free time. Of course, there is nothing wrong with investing in labor-saving equipment in order to develop some loafing time — but that then becomes something other than a purely economic problem.

Now, let's assume that you are operating with a hired man, and you are wondering how much you could afford to invest in a system that will

American Agriculturist, March, 1963

let you do the whole job yourself. How can you tell how much would be a wise investment? If you were spending \$200 per month on labor, then you should be able to spend about \$20,000 on a mechanization program, and approximately break even on the venture. Depreciation and interest on \$20,000 over ten years would be about \$2,500 each year, compared with a \$2,400 labor cost. This is \$100 invested for each dollar in labor costs saved per month.

Profitable Venture

So, for rough figuring, if you could mechanize to eliminate one hired man for less than \$20,000, then theoretically it should be a profitable venture for you. Of course, all major decisions such as this are much more complex than presented here. For instance, before you could plan on eliminating one man, you'd have to study your field equipment situation pretty carefully. You might have to trade for a considerably larger tractor and other units in order to be able to do the work yourself. This would have to be figured into your total project when deciding if the venture would be profitable.

Another complicating factor is that some of your items would have more than a ten year life—such as buildings, silos, and other permanent structures. Since the \$100-invested-per-dollar-of-monthly-saving figure is based on a ten year life, you can see that if your program involves some of these permanent items, then you can actually afford to invest more than \$100 to save a dollar's worth of labor per month.

(Continued on Opposite Page)

American Agriculturist, March, 1963

Things New and Different

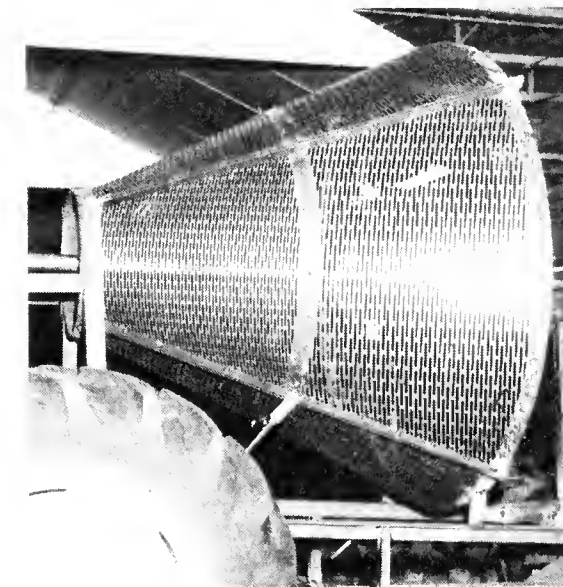
New Market — Agricultural limestone has found a new market—at the bottom of the sea! Last summer 100 tons were dumped into the water—to get rid of starfish and other ocean life that were interfering with the beds of scallops, and to increase shellfish production.

Experiments had been conducted for a two-year period previous to this and had proved that scallop seed survived better in limed areas; that in these areas the condition of the scallops was much advanced; that the number of starfish was much diminished; and that the value of the bay scallop catch in 1960 in the experimental spot substantially exceeded that of the previous year.

Cold Sterilization — As most science students know, an enzyme triggers only one specific chemical reaction. An example is the addition of hydrogen peroxide to milk to sterilize it, after which the enzyme neatly splits the hydrogen peroxide into water and oxygen, without any complicating chemical debris. The new process is subject to acceptance by the Food and Drug Administration.

No Barrier — Indications are that the costs of trucking milk from the Midwest to distant markets may soon be affected by new developments. The Cache Valley Dairy Association, Smithfield, Utah, has been shipping milk into Denver, Colorado—and other places—in a large semi-trailer truck with a large stainless

steel milk tank in the bottom, and regular return-haul normal-freight-carrying capacity above. So far only once have they failed to have a return freight load. In many cases the return load covered the entire costs of the trip; in each case, it absorbed the major portion of the operating costs.



Experimental grain thresher.

New Combine — An experimental combine developed by W. F. Buchele and W. F. Lalor, agricultural engineers at Michigan State University, is expected to give farmers nearly 100 percent threshing and separating efficiency.

As you will see from the picture above, the machine looks like a giant metal ice cream cone. Inside is a cone-shaped "egg beater." The crop enters at the small end of the cone,

and the rubber-covered beaters rotate the grain and cause it to rub against the cone's screen-like surface, then the straw is pushed out at the large end. Meantime, the grain is popped through the screen.

According to Professor Buchele, the big advantage is that 95 to 98 percent of the grain is threshed and separated as compared to 60 to 80 percent in ordinary combines. No straw rack is needed, and less power is used because the machine doesn't have to operate as fast as conventional machines. It is believed that grain quality will also be improved.

Low Calorie—Agricultural scientists continue to produce according to consumer demand. "Ice Milk", on the market last summer, and "Calcut", a low-calorie cottage cheese product not yet marketed, are two examples of new products designed by Cornell scientists.

Vive La Wind! — Scientists at the USDA and Cornell University have come up with the theory that wind is of great benefit to corn growth because it makes available a greater supply of carbon-dioxide, the life-giving gas. Approximately 80% of the carbon-dioxide needed for plant growth is supplied by the surrounding atmosphere, only 20% by the soil. The amount increases with the light intensity, but on quiet, sunny days there is little movement of the gas, and corn growth can actually be retarded. On the contrary, on windy days a continual supply of carbon dioxide is borne down into the corn field, enhancing growth and maturity.

Missing Link — A gene or genes that will restore fertility in male-sterile wheat has been found at the Univer-

sity of Maryland's College of Agriculture. This fertility restorer has never before been identified in bread wheat; the scientists emphasize that much experimentation still remains to be done before hybrid wheat varieties can be available to growers. Hybrid wheat may hold real possibilities for dramatic increase in yields.

Feather Meal — Yes, that's a feed product that contains more protein per pound than any other feed material. Broiler feathers are the principal source of raw material, and current annual production is something over 100,000 tons. The meal has a slight deficiency of some amino acids, so other protein is used with it and its use leaves more room for high energy products in the feed.

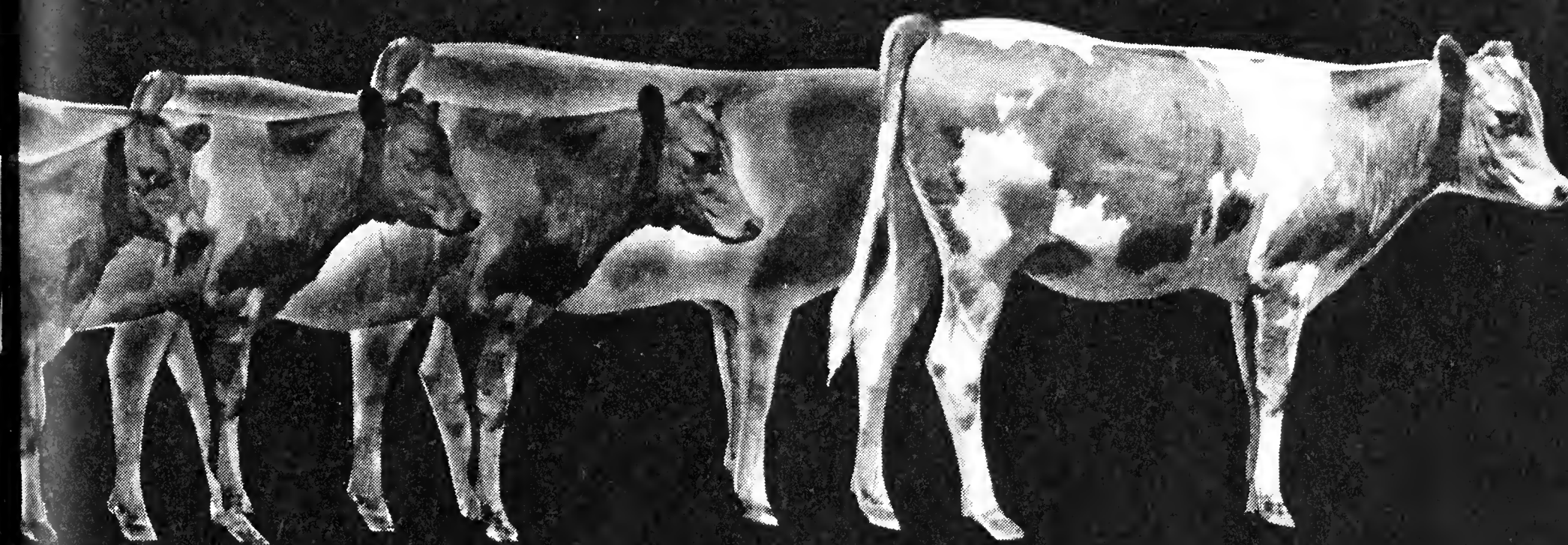
FACTS AND FIGURES

(Continued from Opposite Page)

Still another consideration that you must evaluate is just how you "size" this project. You will only realize the most from your venture if you can set it up so that you come out with a work load that fully occupies all workers on the farm. If you come out with a 1.5 man work load, then you still have to plan on seasonal hired help.

Obviously, such a program is a long-term investment, and requires very careful study and analysis — both on the basis of economics and the mechanical aspects of the matter. Be sure to check with neighbors who have gone farther down the mechanization road than you — as well as with county agents and engineers—about the best route.

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Cambodian farmers use water buffalo instead of tractors.

EDITOR'S NOTE:

Here's a country where industry and agriculture have not yet teamed up to give the progress known in the United States. There have been problems and dislocations caused by our headlong rush toward an industrial economy based on a fantastically productive agriculture. But it's well to reflect now and then on life in nations where transition has been painfully slow.

a man we shall call Som Saat.

Som Saat's life is very different from that which we live here in the Northeast. He doesn't live on his farm but, like most Cambodian farmers, lives in a small village which is surrounded by the lands owned by Saat and his neighbors. He lives in a one-room house made of wood and palm leaves, set on stilts about eight feet high.

Since he lives in one of the larger villages, Saat's children are required to attend school for three or four years. They are able to read and write, though he cannot, for schools in the rural areas are relatively new (Cambodia is spending one-third of its national budget on education.)

Saat has three children who wear nothing or next to nothing until they are school age. They help their mother cook on a wood or charcoal fire and help their father in the fields when it is time to plant or harvest the rice. They ride on the back of his water buffalo to watch him

while he grazes and, when the boys become old enough, they will spend several months or years at the local Buddhist pagoda as novice monks. Almost all Cambodian men have been monks for at least a short time when they were boys.

Som Saat's farm is about 12 acres in size, and he owns it. He has six or eight carefully diked fields on which to grow rice—his only crop. When the rains start in June or July he harnesses his water buffalo to his wooden plow to turn the soil for the start of another crop of rice. Just before this he has sown his rice seed in a small bed which is near a source of water for irrigation. Extra water will be needed by the seedlings to keep them growing until the rains become regular.

After six to eight weeks, when there is enough water in the fields to keep the rice growing, he harrows them with a wooden harrow which looks very much like a large edition of the old wooden hay rakes which we used here before haying became mechanized. Now the whole family is busy pulling the rice seedlings out of the seedbed and transplanting them into the fields where they will grow for the next five or six months.

Time to Rest

After the planting is finished there is time to rest, for now Saat has only to sit and wait for the harvest. Weeding and spraying would help to get a bigger crop, but nobody else is doing it either.

In December comes the harvest, and again all the family must help. The rice is cut with sickles, tied in bundles and threshed by either beating the bundles against a board or driving the water buffalo around and around on them in a flat place where they've been gathered.

Then Som Saat stores his part of the rice under the house and takes the moneylender's share to him. He owes a debt to the moneylender for supplies he has needed during the year, together with interest which will be 100 percent. The Cambodian government, with U.S. aid, is starting cooperatives which lend money at 12 percent to combat this drain on the agricultural economy of the country. Saat will be able to keep more of his rice when a co-op is formed in his area.

Now the harvest is finished and there is not much to do until the rains start again in six months. There is now plenty of time to visit with the neighbors and enjoy the various holidays which are so frequent during the dry season. Maybe Saat will visit the capital town of his province and see an Indian movie. To get there he will either ride his bicycle or one of the crowded Chinese buses. Saat has never heard of the United States and even if he had, he would think that it was somewhere next to France.

Such is life for the average Cambodian farm family. World problems are not even known to them. They pay some taxes on their land which supports the local government and part of the national government's expenses. **The rest of the government's expenses is provided by foreign aid.** Only a few years ago, Cambodia was part of French Indo-China and was economically tied to her sister states of Laos and Viet Nam. Now with our help, and the help of others, she is trying to build an independent economy of her own. All this takes time, just as the education of her people will take a generation or two.

Farming Across the Seas

By H. NELSON LEAVELL

BEFORE I describe what life is like to Cambodian farmers, perhaps it would be well to refresh your memory on where and what Cambodia is. Cambodia was formerly part of French Indo-China and is almost exactly halfway around the world in Southeast Asia. Its neighbor to the North is Laos, to the East is Viet Nam and to the West is Thailand or Siam.

Now that we have it located, what is Cambodia like? Eighty percent of

its people are farmers; there is very little industry and only one large city, which is the capital, Phnom Penh. Those who live in Phnom Penh may be aware of the threat to their independence posed by the Communists, but, certainly, those who farm are not at all aware of this threat. For a better understanding of this large and most important segment of the Cambodian people who are engaged in agriculture, let's spend a day with

The success of Mohawk Airlines stems largely from the tailoring of its service to the transportation needs of business and industry in New England, New York State and west to Pittsburgh, Cleveland and Detroit.

MOHAWK AIRLINES INC.

Grange Position On Milk

(Continued from Page 24)

its efforts. Neither of them can be solved apart from the others.

Let's now discuss the dairy problems in the light of the above considerations. **The farmer is entitled to an American price for that part of his production which is domestically consumed** just as he pays an American price for that which he uses to maintain his production. Farmers cannot pay an American price for that which they purchase, and sell their milk on a market which is dominated by world prices which are substantially below domestic prices, largely due to the lower costs of production in foreign countries.

Class I milk should be priced at a level which reflects more the factors of cost of production and an equitable income for producers and less on the factor of the supply of Class III milk. Pricing of Class I and III milk should be divorced, and the parity price for Class I obtained by a revision of the present pricing formula used in the federal milk marketing orders.

The present and predicted disposable income of consumers indicates that this is possible. **Producer income should be derived from the consumers of farm products, not from the federal treasury.** Proposed dairy programs which would eliminate federal expenditures without increasing the costs to the consumers are just not going to solve anything.

Class III milk should also be priced at parity which reflects its cost of production as well. This is in the neighborhood of \$4.17 per cwt. Since

the sale of manufactured milk products is based upon a national market, this should be a national program, with special consideration given to the production factors in the areas which traditionally produce most of the Class III milk.

No pricing program for Class III milk should be seriously considered by the Northeast which would use the higher Class I prices of this area to enable it to dump enough Class III milk on the market at a price lower than the cost of production, and thereby destroy the only market which significant numbers of American dairy producers have. The only way to protect the Class I market in the Northeast is to prevent the Class III market in the Midwest from dropping so low that it is to the economic advantage of Wisconsin farmers to ship their milk 1,000 miles into this market. The Grange will not be a party to a program to improve one market at the expense of another.

Milk produced beyond the needs of the domestic market should be allowed to reflect world market prices which currently are the manufactured equivalent of about \$1.06 per cwt. without either government purchase or reducing the price on the domestic market.

It is obvious that the present dairy support program has been less than effective in controlling production. Mandatory government controls on production, without a significant increase in price which would maintain income, will not have producer support. The income problem must

be solved either before a supply management program or as a part of it.

Because of the nature of the Class I market, the only supply management needed at the present is the establishment of a historical base for the milkshed and the allocation to each farm of its historical and proportional share of that base in terms of pounds of milk produced. Such bases **should be tied to the land** except for small bases which could be combined to form an efficient family farm unit. Even this exception should be subject to controls such as the approval of a county committee and probably with size limits clearly defined.

Production of Class III milk could be voluntarily controlled by a combination of incentive reduction payments as outlined by the Dairy Advisory Committee in 1962 and embodied in the Humphrey Bill, and a reduction in the amount of milk to be supported instead of a reduction in the amount of the payment. Such federal money, which should no longer be necessary once supply is brought into equilibrium with the market demand, should be honestly labeled as a **consumer subsidy** and come to the farmer as direct payments.

The other sections of the Grange dairy program approve universal deductions for expanded milk and dairy product promotion, a dairy Advisory Committee elected by producers with two-thirds of the members being producers; and an important new item—the imposition of legal financial liabilities upon those who make false statements about any food product which causes damage to either the producer or consumer.

The Grange proposals obviously would mean a combination of a federal program for Class III milk and a market order or regional program for Class I. With proper support based upon enlightened self-interest, a voluntary program could be successful.

Due to necessary adjustments on the farm and in the industry, such a program could not be accomplished immediately. By adopting this voluntary program, a yearly improvement in Class I and Class III prices could be made to raise them toward parity. Incentive reduction payments could also decline gradually at regular intervals with a matching drop in the amount of milk supported each year; over a period of time we estimate that a producer with a 1,000 cwt. yearly base would achieve a net increase in income of about \$4,500.00 per year. The surplus problem would be cured and costs to the government substantially reduced.

GOOD BULLETIN

The U. S. Department of Agriculture has just issued a revised bulletin on logging for woodlot owners. Farmers who can do their own logging are likely to come out much better than when they have to hire it done, and they would certainly find this bulletin full of helpful information. It is particularly well illustrated.

If interested in having a copy, write to the Superintendent of Documents, Government Printing Office, Washington 25, D. C. and ask for Farmers' Bulletin No. 2090, entitled "Logging Farm Wood Crops." Single copies are free.



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Farm Week Highlights

By AMOS KIRBY

New Jersey Editor of American Agriculturist

WHERE DO New Jersey farmers stand under Governor Hughes' huge financing program?



AMOS KIRBY

This was the big question left unanswered as the New Jersey Farm Week came to a close.

As of now, Governor Hughes shuns the proposed sales tax, and suggests that the State tap the last "piggy bank" for

financing many pet projects. In brief, Governor Hughes advocates a \$750 million bond issue, to provide \$150 million a year for five years; then, in 1972, when the last of the Turnpike bonds are paid off, to pick up an estimated \$42 million to pay off the bonds and other items.

Sales Tax The farm tax problem was about to be approved by the Agricultural Convention meeting during Farm Week when the resolution was amended to consider the Governor's proposal. From what can be seen at this time, there is little

evidence that the Governor's plan will mean too much help in halting the mounting costs of education at the local level. Just how much of the State Tax Policy Commission report will be accepted by Governor Hughes and the Legislature remains to be seen.

Farm Week

Secretary of Agriculture Phillip Alampi devoted much of his report to the dairy situation. He told the Convention delegates that his Department was bending every effort to develop a new milk regulatory program. Expressing confidence that a workable and acceptable program will be developed, he asked for the cooperation of all groups in the industry.

The plan that he outlined must be

backed up with strong investigative authority, injunctive powers, fast action in adjudication, stiff penalties for violators, with license revocation as the capital punishment for those who habitually and purposefully violate the rules.

Looking Ahead

Potato growers were told to take a new look at the fast-moving changes coming in marketing. The brightest new spot was in growing potatoes for the processing industry.

Edward Morin, director of research and development at Seabrook Farms, reported that since 1951 the frozen potato industry has doubled in size every three years.

Crops — That big tomato crop harvested last year is going to force changes in the South Jersey farm picture. Two processors have already announced reductions in acreage. Hunt Company, Bridgeton, will not operate this year, and the P. J. Ritter Company, also of Bridgeton, will reduce contract acreage by 30 percent.

Farm Bureau — There is much interest in the American Agricultural Marketing Association's New Jersey affiliate, sponsored by the Farm Bureau. Neil Moore, Glassboro, manager of the affiliate, told fruit and vegetable growers that the Association plans to educate farmers to deal with all factors of marketing, aiming at long-range benefits to all. The New Jersey Council of Farm Cooperatives, organized last spring, may be the first step in this program.

Honored

4-H Award — William C. Lynn, assistant secretary of agriculture, received a citation from the 4-H Club Leaders Association for his work with the 4-H program over the years. John Hassert, Essex County 4-H Club Agent, presented an engraved gavel to Francis Mansue, Ocean County, who was recently elected president of the National Association of 4-H Club Agents.

Conservation — Six members of the USDA Soil Conservation Service were honored for outstanding work: Jean Angelo, Cranbury; Roger Van Powley, Woodstown; William H. O'Donnell, Moorestown; Walter Cinkowski, Marlton; Theodore Vail, Plainfield; and Mrs. Eleanor Heil, Milltown.

Spelling Bee — James Mulvihill, Madison, was proclaimed champion in the State Grange Spelling Bee; placing second was Robin Lipkin, Pennsgrove.

Poultry — Golden Egg awards went to Elia Clemenson, Estell Manor, Atlantic County egg producer, and J. Clifton Lambert, Jr., chief of the Bureau of Poultry Services, Trenton.

Awards — The Vegetable Growers Association presented awards to George Troutwein, Closter, and Clarence B. Davenport, Mount Holly. Mr. Troutwein is president of the Certified Farm Markets, and Mr. Davenport was identified with vocational agriculture at Mount Holly for many years before his retirement.

Citations — The four citations awarded annually to outstanding leaders in the field of agriculture went to: Jacob A. Blakeslee, Newton; Charles Collins, Moorestown; Clayton Cronkright, Summit; and William B. Duryee, Allentown.

4-H Awards — The New Jersey Bankers Association 4-H Club awards went to Miss Irene Morowsky, Somerville; Miss Ellen Ann Winters, Scotch Plains; Warren Grover, New Egypt; and Glenn Gerken, Jerseyville.



F. A. Cross, right, and Art Lewis, inspect silage harvested on the Cross farms at Willsboro, N.Y.

A successful formula for:

MORE THAN 25 TONS OF CORN SILAGE/ACRE

Friend A. Cross, owner of two farms in Willsboro, N.Y., used this simple formula to produce more than 25 tons of high-quality corn silage per acre from 20 acres of rich Upstate New York soil in Essex County.

How did the resourceful farmer do it?

First, Mr. Cross is a good farmer by any standards. He was born and reared on the farmland he now owns. He works 100 tillable acres and milks some 43 Holsteins. This Good Management Planning (GMP) of the farm is the first part of a successful silage formula.

As a good farmer, Mr. Cross used a soil test (ST) and followed the recommendations. He planted 14 acres of Cornell M-4 and 6 acres of Cornell M-3 seed corn (SC) from GLF. Plant population was in excess of 24,000 plants per acre. He fertilized (F) with 500 pounds per acre of GLF super phosphate, 15 tons per acre of manure, and 500 pounds per acre of GLF 16-8-8. The field was limed (L) with two tons per acre. Atrazine (A) was applied at the rate of 2½ pounds per acre, in line with GLF recommendations.

Results? More than 25 tons of high-quality corn silage per acre.

GLF is proud to play a part in the success stories of farmers like Mr. Cross. His farm is serviced by Art Lewis, GLF Agent-Buyer and owner of Lewis Farm Supply at Wadhams, N.Y.

If you would like to join Mr. Cross as a top corn silage producer, contact your nearby GLF Service Agency for more information about GLF's complete crop needs package—soil test, the right seed, pesticides, fertilizer, lime, and on-the-farm assistance to help you grow more TDN per acre.

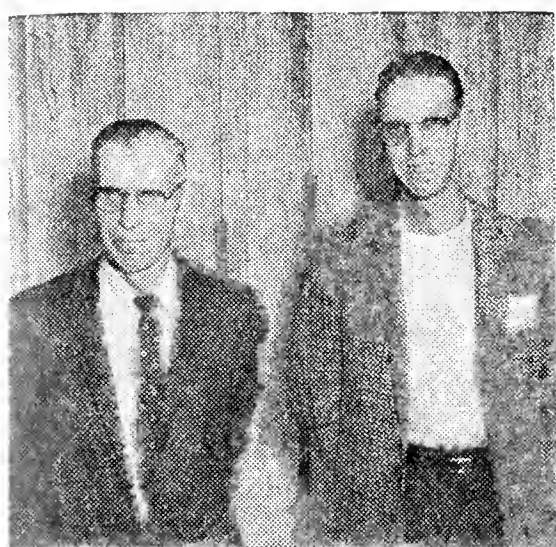
"BOOT" THE SPLIT BOOT PLANTER

Faulty split boot planters, when placing fertilizer with the seed, can cause serious stand reduction. Modern planters are available that place the fertilizer where it belongs—to the side and below the seed. If you are still using the split boot planter, make this important change this season. Don't chance a profitless stand.



GLF COMPLETE CROP SERVICES

Personal Farm Experience



Carl (left) and Robert Mitchell

Cattle Feeding

We operate a 290 acre farm and have 30 milking cows. Our feeding program includes a system of starting two weeks ahead of calving to begin working cows up toward full feed. The highest amount of grain we have fed a cow is 28 pounds a day—to one giving almost a can of milk a day.

Our roughage program isn't neglected, though, especially since we began forage testing in 1959. Since starting testing we've moved up eight or nine percent in TDN content of hay. Part of this has been due to earlier cutting; we were done haying last season on June 27 and in 1961 we finished up on July 6.

In 1962, we baled some oats for hay because the drought made it look as though we were going to be short of roughage. The seeding (straight Vernal alfalfa) came up knee high that same summer where we had baled the oats.

We are not using a kicker baler, but have cut bale size down to about 28 inches. Smaller bales are easier to handle—somehow the day in the hayfield doesn't seem as long as it did with the bigger bales.—*Carl and Robert Mitchell, Montrose, Pa.*

Orchard Grass

I like orchard grass for pasture. Seedlings stay a long time and yields are good, especially in late summer.

I have fourteen three-acre strips and change pastures every day. If the orchard grass gets ahead of the cows, I bale it for dry cows and youngstock.

I had some second cutting orchard grass analyzed and it showed 14 percent protein.

Some of my land is rocky and hilly and hard to work. Some such fields have been in orchard grass 15 years without reseeding. — *Lou Longo, Glastonbury, Conn.*

Orchard Herbicide

In 1961 we used a combination of Karmex and dalapon to control grass and weeds in a part of our orchard. By the way, we have about 150 acres of apples, about 25 acres of cherries, and some muck vegetables.

We went into 3 blocks of apples in 1961 with the combination mentioned and got good commercial control, even though a slight miscalculation in our pencil work resulted in the Karmex being put on at only half the recommended strength.

In 1962, we used the same combination of chemicals, this time at the upper levels of the range of strengths suggested by the Extension Service. Both materials are a wettable powder and we find it

works better to mix a slurry and put it into the spray tank—a 55 gallon oil drum mounted on the three-point hitch of the tractor. We use two hand guns and a low pressure pump.

Spray is applied in a radius 3 to 4 feet out from the tree trunk. Every attempt is made to avoid spraying the foliage, but the trunk itself is not sensitive to damage. One block had trees 50 years old and was interplanted with young trees that had been in the ground only 2 years.

Although this practice isn't recommended, we did use the herbicides around the younger trees as well as the older ones, being particularly careful to avoid getting it on the young trees. This was done in 1961, and we have observed no injury to the younger trees.

Time of application is just prior to blossom in the spring; this is a disadvantage in that this is a period with a pretty heavy work load. It would be ideal for us if we could go in with herbicides in August, but this isn't possible. We're trying, of course, to eliminate the hand grubbing of sod away from the base of the trees, something pretty important in the controlling of mouse damage. It takes 6 to 8 men a week

or two in the fall to do this job by hand. Three men are required under our present system—one on each of two guns and one on the tractor. We're already making plans to use a boom-equipped rig that will require only one man on the tractor.

—*Marion Johnson, Williamson, N. Y.*

Alfalfa Insects

We used dieldrin, applied on November 15, for alfalfa insect control. It was custom applied, using 21 gallons of water per acre—3 quarts of material (1 pound of actual toxicant) per acre.

In our opinion, the yield of hay from a field that is treated is nearly double that of an untreated field. —*Clyde Storch, Mechanicsburg, Pa.*

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*Data available on request

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The best time to treat cows that have a history of mastitis is during the dry period. Treating dry cows with Pen-FZ helps to prevent freshening flare-up, and eliminates the need to hold milk off the market.

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J. S. San Bernardino, Calif., "I was troubled with a bad leg sore for many years, and at times was unable to walk. After trying many preparations, and ointments, a friend recommended TARLEINE, which healed the leg in a very short time, and I have never been bothered since."

W. J. P., Indianapolis, "I have used TARLEINE and found that it is everything you claim it to be. I have cured my piles and I am so thankful to you for putting out such a remedy."

LESS LIGHT FOR LAYERS

LIGHT STIMULATES a hen's pituitary glands, in turn stimulating egg production. But if it's done too early, research shows that young pullets may develop into "false layers" due to accelerated reproductive development.

One popular system that avoids this is the step-down, then step-up method—20-24 hours of total light (daylight plus artificial light) for day-old chicks, then drop down 20 to 30 minutes per week until maturity at 22-24 weeks of age. Light is then stepped up on a similar schedule to a maximum of 16-20 hours per day.

At Cornell University, Professors Charles Ostrander and C. N. Turner have been checking size and type of lights. They report that, contrary to widespread belief, light intensity does not affect a hen's production rate. Smaller bulbs in henhouses did just as well as higher wattage bulbs—and turned the electric meter much slower.

In the Cornell experiments, egg production stayed up near 93 eggs per bird for the 147 day test period under 60-watt incandescent lights. "No increase in egg production came from using higher intensity 100-watt incandescent lights over 60 watt," Turner emphasized. Chickens are stimulated by light only up to a point—after that, any added wattage is wasted.

Egg production was 81 eggs per bird in pens using fluorescent lighting. "That's eight percent below the egg production for 60-watt incandescent lights," the specialist pointed out.

Yet, many poultrymen have been installing fluorescent lights because of claims that they'll be cheaper to run and last longer. Turner noted that fluorescent lights would be more efficient if chicken pens stayed at around an 80 degree F. temperature all year long.

The temperature in poultry houses, however, fluctuates between 40

and 90 degrees F. As the temperature goes down, the fluorescent lights become more inefficient until they are very inefficient below 50 degrees F.—during the winter when the hens need the light the most. In fact, at 40 degrees F., the fluorescent lamps give no more light than incandescent lamps and yet they cost ten times as much to install.

Another reason chickens don't lay as many eggs under fluorescent lights may be the predominantly blue light in the fluorescent tubes. Many scientists believe that chickens are stimulated most by red light waves; blue light seems to have little value to laying hens.

POULTRY BRIEFS

USDA tests have shown that the larger the concentration of hens in a cage, the less lay. It was found that birds living five to a 24 inch cage averaged 208 eggs each for the 336 day test period, with 38 percent mortality; hens doubling up in 12 inch quarters did a bit better with 226 eggs for the same period and mortality of 16 percent. Birds living in their own private cages (8 or 10 inches square) did best of all. Those in the 10 inch cages averaged 232 eggs, mortality 13 percent; birds in 8 inch cages averaged 231 eggs, with mortality of 12 percent. Feed conversion was the same in all cases.

* * *

In poultry housing research at Michigan State University, egg production of hens in cages was about the same as that of hens housed on the floor, with smaller production from hens on slatted floors. But at the University of Rhode Island tests showed floor birds of both Rhode Island Reds and Leghorns laying more eggs than caged birds. The Leghorns laid more than the Reds; floor birds of both breeds produced more eggs per pound of feed than the caged birds.



New Way to Plant Corn

Specialists at the University of Nebraska have been doing some research with what they call a till-plant system for growing corn. Designed for use where corn follows corn, it consists of these steps: a rotary stalk cutter chops down last year's residue; in one operation the ground is tilled, planted and insecticides and herbicides are applied (see picture above).

Research on the system started in 1955 and six years of research plus

three years of field testing have gone into the development of specialized equipment and cultural practices. Figures from 1960 plantings indicate about equal or slightly higher yields with the till-plant system. Tillage costs, of course, are considerably lower with the minimum tillage system. For additional information write to the University of Nebraska, College of Agriculture, Lincoln, Nebraska, and ask for publication E. E. 61-711.

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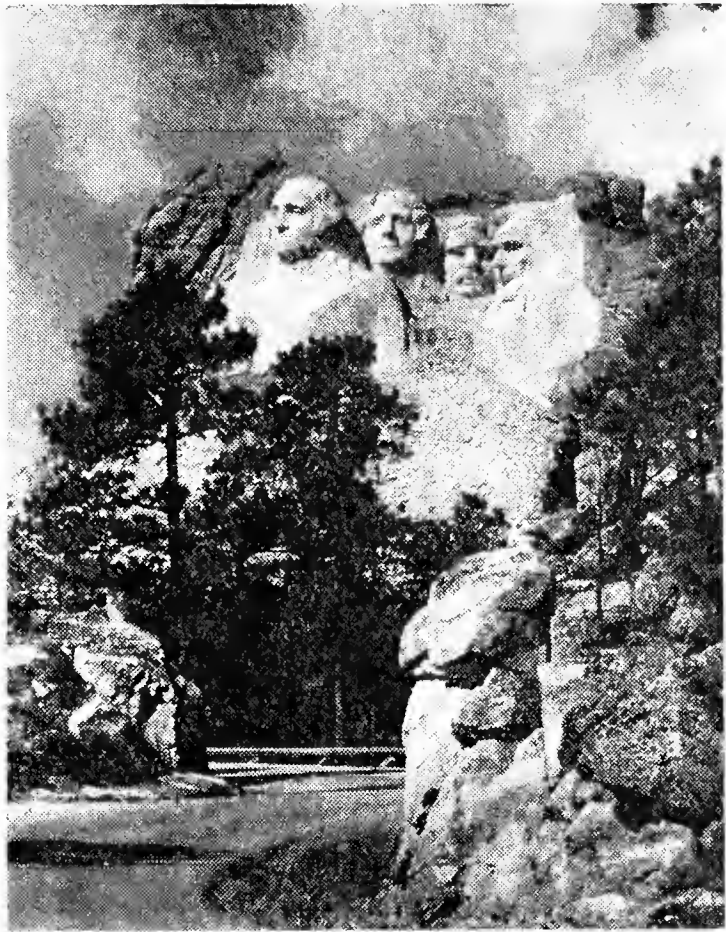
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Pacific Northwest Tour

July 7-27



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IT'S NOT A BIT too early to plan your summer vacation, and what could be more enjoyable than a thrilling trip to California and the Pacific Northwest with a congenial American Agriculturist tour party? We and our official agents, the Travel Service Bureau of Needham, Mass., have planned what we feel is one of the most outstanding tours of the United States ever offered our readers.

Like all American Agriculturist tours, this will be an "all-expense" trip with everything included in the price of the ticket—all transportation, first class hotels, delicious meals, sightseeing, baggage transfer, tips, and the services of our competent tour escort.

Following is just a brief outline of places we will visit:

WESTWARD HO!—On July 7 we'll gather in Buffalo, N. Y., for our first meal together—dinner—and a look at Niagara Falls by daylight and under colored floodlights. The next day will find us in Chicago where we'll board the streamlined California Zephyr for our trip westward.

THE BLACK HILLS—The first highlight of our trip will be this well known section of South Dakota. We'll travel along the Needles Highway, attend the famous Passion Play in Spearfish, and visit magnificent Mount Rushmore.

DENVER—COLORADO SPRINGS—These beautiful mountain cities will be featured next, and we'll see Red Rocks Park, the Air Force Academy, and Garden of the Gods. We'll also visit an authentic ranch for a real chuck wagon Bar-B-Q and an evening of "western style" entertainment. The following day will come America's most exciting train trip, the Royal Gorge route through the Colorado Rockies.

SALT LAKE CITY—We'll have a day and a night in this historic city and attend an organ recital in the Mormon Tabernacle.

CALIFORNIA—Six marvelous days in beautiful California. Our sightseeing will include Yosemite, the Monterey Peninsula, and San Francisco.

CRATER LAKE—One of America's most unusual phenomena—an actual sunken crater of prehistoric times filled with the bluest water imaginable.

THE PACIFIC NORTHWEST—The spectacular drive along the Columbia River Gorge to Bonneville Dam and magnificent Multnomah Falls, also a tour of the famous Pendleton Woolen Mills.

CHEYENNE—Always the most exciting town of the "old west," this city comes alive again each year for Frontier Days. Grandstand seats are reserved for us at the Rodeo, which is the real thing with riders competing for valuable prizes and world championships.

HOMEWARD BOUND—We'll travel home on a Union Pacific streamliner, across the states of Nebraska and Iowa. Then, at various stops in New York, we will say goodbye to old and new friends until our next trip together.

We urge you to send in the coupon and get complete information about this wonderful trip.

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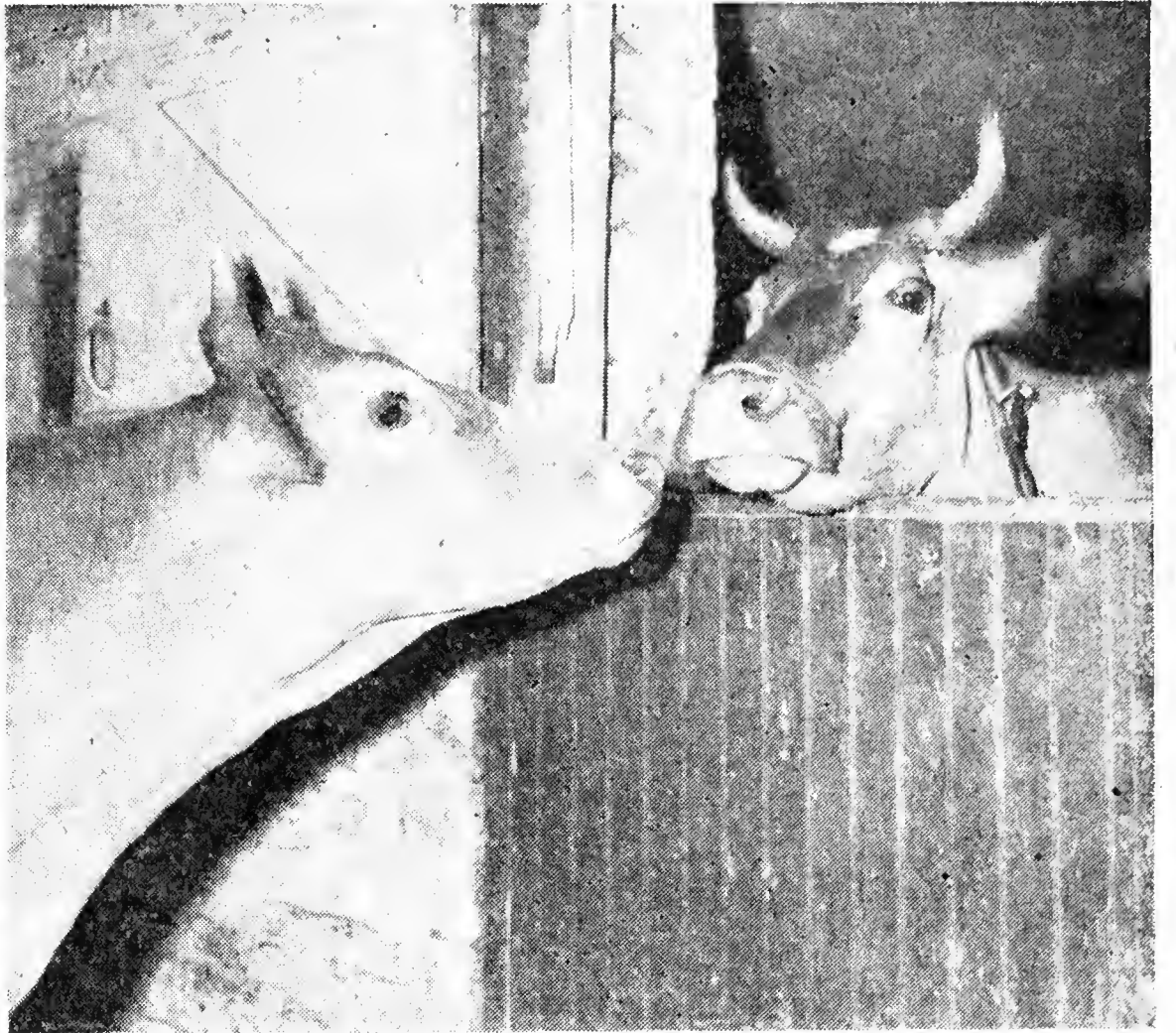
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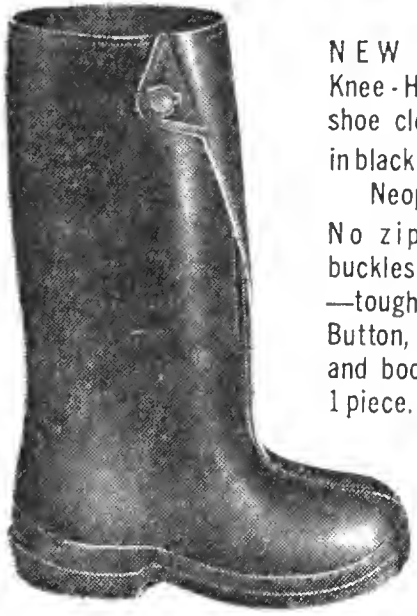
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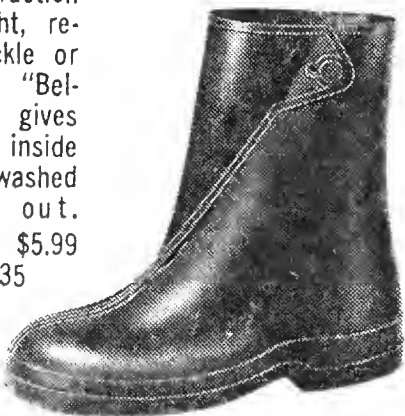
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Big Farm Profile

By
ISA LIDDELL

AN INTERESTING study on large Pennsylvania farms, partly financed by grants from the Cooperative G.L.F. Exchange, the Pennsylvania Farm Bureau Cooperative Association, and the Eastern States Farmers Exchange, has recently been completed at the Pennsylvania State University by James Holt and Prof. W. L. Barr.

The purpose of the study was to determine (1) how existing large herds in the State developed and were being operated; (2) whether new techniques for handling large numbers of cows efficiently were being used; and (3) what problems were associated with herd expansion.

Large Herds

Operators on 86 dairy farms on each of which 80 or more cows were milked were interviewed between 1960 and 1961. Most of these operators had started with small family farms and expanded them to present size with purchase and rental of land and facilities. More than one-third of them planned substantial further expansion of their dairy herds; only five planned to decrease or go out of dairying.

Most of the operators had been dairying all of their lives, but about two-thirds had expanded since World War II. About a third had expanded to 80 or more cows within the past five years, and some were still expanding.

Reasons given for expansion included: bringing family members into the business; a desire to raise income; expansion of retail business; and the need to spread overhead costs resulting from the application of new technologies, especially milking systems.

About half of the herds were owner operated; another quarter were partnerships, usually consisting of a father and son or several brothers; only five were corporations (of which there were three family set-ups); 15 were hired manager farms where the owner exercises little or no direct control over operations. Less than 15 percent were either "hobby" farms or managed for breeding and raising dairy cattle for show or sale.

Twelve operators had home milk delivery businesses, or sold "jug" milk on their farms. About as many more sold wholesale to local bottlers and received higher than average prices. Fewer than two-thirds, therefore, sold their milk wholesale on metropolitan markets.

Cropping and feeding patterns were similar to those followed in the area in which they were located. All were growing some crops.

Less Pasture

A definite tendency was developing toward limiting or eliminating pasturage, even in areas where some land could not be cropped. Sixteen didn't pasture their milking herds at all; many more were using very limited amounts of pasture. Reasons given were increased yields obtained by greenchop (operators were under pressure to increase yields as herds expanded); another factor was the amount of pasture needed for large herds and the time and labor consumed in moving large herds in and out twice a day.

Greenchop was being abandoned by some in favor of year-round storage feeding, because of the inconvenience of having to chop every day regardless of weather, plus the

difficulty of maintaining forage quality.

Loose housing facilities were used by 32 of the 86 dairymen (both new and remodeled). Apparently the biggest problems associated with loose housing units were of design and construction. Some had been built without competent engineering advice, or before the intricacies of improved design were known. In some cases attempts were being made to combine loose housing with old facilities, which prevented maximum efficiency. Even in newer units details such as drainage, winds, and manure handling had sometimes been overlooked.

Forty-three of the herds were housed entirely in stanchion barns; 11 were "combination" housed.

Definite interest was shown in reducing labor required for feeding; only seven of the farms studied had an entirely automated system. In others all of the customary types of housing and milking facilities were followed.

Forty-four operators used artificial breeding successfully; 30 combined artificial breeding with service from their own bulls. A few who bred only some cows or the entire herd artificially used semen from their own bulls; two relied entirely on natural service.

Holsteins were the most common breed, accounting for 54 of the 86 herds. Almost two-thirds kept some or all registered cows.

Fifty-seven herds were on milk production testing programs of some type. Annual production per cow varied from less than 7,000 pounds of 4 percent fat milk to 12,000 pounds.

Typically, the labor force consisted of the owner or manager and one or two reasonably good, reasonably steady hired men. Only three farms were operated entirely with family labor.

Paid Top Wages

Operators of large herds had increased the pay scale in order to attract and keep good men. For ex-

(Continued on Page 38)



Rocco Currie and Albert Ranaldi proudly display excellent quality apples in a Vertagreen orchard at Mr. Ranaldi's Green Groves Farm.

Three years of testing showed Consistent Orchard Improvement with Vertagreen®

Mr. Albert Ranaldi, a leading apple grower in Highland, New York, has just completed a long series of test plot experiments with fertilizers. Here's his report...

"We have made test plots in our Green Groves Farm orchards for the past three years. We placed the test plots in orchards which were different in soil conditions and apple varieties. We applied Vertagreen 10-10-10 Orchard Mix at the recommended rate after soil testing."

"After the first two years, we noticed

the yield and quality of the fruit in the test plots had consistently improved. During the drought condition which prevailed last year, we noticed that the trees outside the test plots had definite deficiencies, in both the fruit and foliage. This sold us completely on Vertagreen!"

Mr. Ranaldi is another grower who has proved to his own satisfaction that Vertagreen is an investment that pays for itself many times over. He is convinced Vertagreen is "Worth More Because It Does More."

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successful growers who are happy they made the same fertilizer choice. For better quality, bigger yields and greater profits, contact your friendly Armour agent for the balanced, premium plant food you can depend upon—Armour VERTAGREEN!

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Simply sprinkle the recommended amount of Du Pont "Ceresan" M-DB on the seed, right in the drill box and mix thoroughly. The red coloring tells you when the seed is evenly treated.

This Simple "Measure and Mix" Method with New Ceresan® M-DB Protects Seed

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Treat wheat, oats, barley and other seed right in the drill box or planter with new Du Pont "Ceresan" M-DB.

This new method protects seed against disease; helps increase stands and yields. It's the stand you see "above the ground" that counts! "Ceresan" M-DB reduces the "cost of the stand."

Treatment in the drill box also means no left-over treated seed. You treat just what you plant. Even if you have some of your seed treated, take home a can of "Ceresan" M-DB to treat extra seed

you may need to complete your planting.

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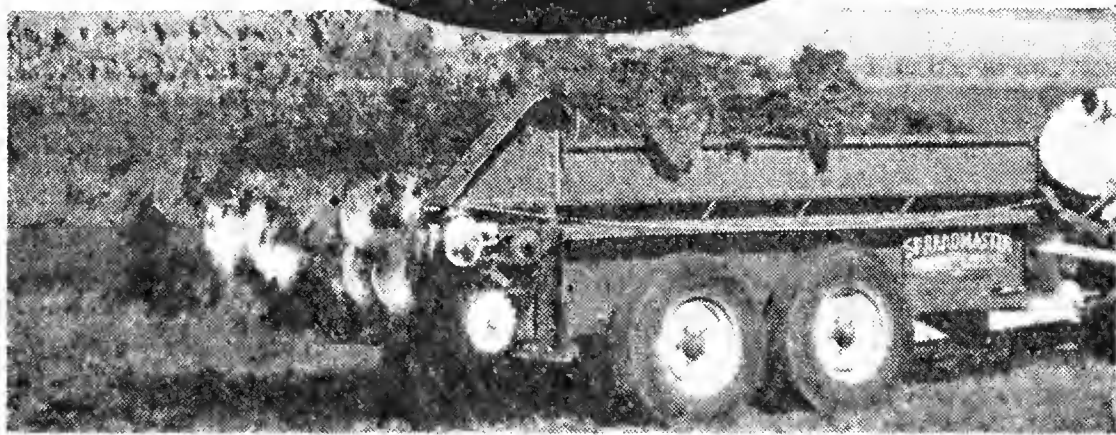
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FOR SPRING PLANTING

Think Big About Corn

(Continued from Page 1)

es for a full yield, and reduces the return per dollar invested in the other recommended practices.

The desirable package of practices is not necessarily aimed at growing the highest yield of corn, and it is not concerned solely with growing corn at the lowest total cost per acre. Our recommended corn production program for 1963, as well as for the years ahead, is devoted to **maximum profits per acre**, or the lowest cost unit of feed produced per acre.

Choice of Seed

Careful selection of hybrids that are adapted to the soil, climate and management practices, and with good standability and disease resistance, is one way of assuring good return from investments in other practices. Anything less than the best choice of seed will limit returns from land, labor, equipment and materials, to say nothing about a reduction in storage supply.

In many areas, the time of silage harvest is more often determined by weather conditions (first frost or fall storm) than by the stage of development of the corn plant. Corn plants developing 25 percent dry matter, of which one-third is grain, is the goal to shoot for when selecting a corn hybrid for silage.

Seedbed

Minimum tillage cuts cost, maintains soil tilth and—under many situations—reduces weed problems. A good job of plowing, though, is still basic for preparing a good seedbed in the process of minimum tillage. Various types of "clod busters" pulled behind the plow will help to do more of the seedbed preparation in one operation. Each corn grower will find it important to develop his own skill in adapting minimum tillage methods to his specific soil and climate situation.

The common system of seedbed preparation with several trips over the field to disk or harrow is costly, and soil compaction from excessive tillage reduces water intake and may limit root development. Fitting and firming the seedbed just enough for good seed-soil contact is all that's needed.

Wheeltrack planting — or other methods of firming the soil only where the seed is planted, but not between the rows — will result in better water infiltration and less surface loss. In most areas of the Northeast additional water available to plants during the growing season would mean substantial boosts in yield.

Plant Population

Farmers cannot afford to invest in fertilizer, chemical weed control, equipment, etc. if poor stands of corn continue to limit yields. A sur-

vey in New York State indicates that many farmers could increase corn yields by 15 to 20 percent simply by harvesting thicker stands. For many who apply improved practices on good corn land, the range may well be from 20,000 to 22,000 harvested plants per acre.

Droughty soils, and soils subjected to severe lodging, should have stands in the range of 14,000 to 18,000 plants per acre. The number of plants per acre take into account row width and plant spacing within the row.

Remember that only about 70 to 80 percent of the corn kernels germinable in the seed bag produce fully developed plants. Seed damage, excessive planter speed, insect damage, cultivator injury, etc. are responsible for these losses. In order to harvest specific populations, it is necessary to plant from 20 to 30 percent more kernels than the number you're shooting for.

The stand of corn is usually best — when tractor and planter speed is between 3 to 4 miles per hour. Higher speeds give thinner stands because the planter cannot precision-place the desired number of kernels at higher speeds. At about 4 miles per hour each planter plate must deliver and plant with precision as many as 10 kernels of corn per second.

Kernel Size

The use of corn planter plates properly matched with specific corn kernel grades is very important in getting uniform stands of desired plant populations. If kernels do not fit the planter plates, there will be frequent skips from failure of the planter to drop seed, and from kernels cracked by the planter.

Seed grade influences the number of kernels in a bushel as follows:

Large flats	71,000 kernels
Medium flats	84,000 kernels
Small flats	96,000 kernels
Small Rounds	90,000 kernels

These differences mean a range of as much as 2 acres in the area planted per bushel of seed. As we are more specific in plant populations and in calibrating planters, more attention can be given to acres planted per bushel of seed and the resulting seed costs. If the quality of seed is the same in each grade, the shape of the seed will not change the characteristics of the crop.

Row Width

The trend is toward row widths in a range of 28 to 36 inches to get desired increases in plant population, and yet give each plant the least competition from other corn plants. It is important to select hybrids that will respond to heavier stands.

Narrower rows shade the soil earlier in the season, thus reducing water evaporation. This may conserve

(Continued on Opposite Page)

Suggested Kernel Spacing To Harvest Indicated Plant Population

Row Width (inches)		Distance between planted kernels*	
32	36		40
Approximate plants per acre (thousands)		Inches	
—	29	26	5
28	25	22	6
24	22	20	7
22	19	17	8
20	17	16	9
16	15	13	14
14	12	11	16

* Based on the fact that an average of 20 to 30 percent of planted kernels do not develop harvested plants.

(Continued from Opposite Page)
water available to plants and ease the stress of dry summer periods. Let's do a good job with 36 inch rows now, but keep a keen eye to the future when we can adjust equipment and methods fully to accept narrower row widths.

Fertilizing

Fertilizer recommendations are usually given in rather general terms (see table at right). Farmers who have complete information about their soils, including a soil test, plus understanding about the fertility requirements of the corn plant, can improve upon the general recommendations and thus make them fit their own special situation somewhat better.

Compare the many different forms of nitrogen on the basis of the cost per pound of nitrogen applied. Foliar applications of nitrogen, phosphorus, and potassium fertilizers are not practical for field corn. The amount of nutrients that can be applied at one time without burning the leaves is so small that 5 to 10 sprayings would be needed to apply the amounts usually put on as dry fertilizer at planting time.

Weed Control

Chemical weed control has opened a new world of opportunity for corn growers. It is now well within reason to have weed-free corn fields all season long. That results in top yields, but, more important, makes possible top return from other improved practices. Atrazine and 2,4-D (amine or low volatile ester) are recommended by Stan Fertig, herbicide specialist here at Cornell.

Did you ever consider that chemical weed control in corn contributes to the quality of early cut hay? It is possible to devote time and energy to making early cut hay without the pressure of cultivating corn.

Solid vs. Row

A corn plant reaches its maximum vegetative growth and development at the silking stage, about 10 to 11 weeks after planting. In order to harvest the maximum tons of forage per acre at that stage of growth, it is necessary to have a population in the order of 75,000 to 100,000 plants per acre from broadcast or drilled plantings.

Harvested material at silk stage will be all stalks and leaves, with no grain. Yields per acre of green forage will be high (often 30 to 50 tons per acre). However, the harvested material will be about 80 percent water—such material is not satisfactory for silage. If left in the field until the normal silo filling time, the moisture content will be desirable for silage, but the plants maturing without ears will have decreased in quality as a silage crop.

In most cases, harvesting solid planted corn at high populations yielding up to 30 or more tons of green weight per acre has resulted in serious harvesting problems. Farmer experience is that the conventional direct cut chopper heads, as well as the flail choppers, have a tough time harvesting solid stands of corn.

Research evidence, as well as farmer experience, show the conventional row planted corn provides the maximum yields of TDN and the greatest flexibility in utilization. Harvesting for greenchop, silage, or grain can be done with conventional row equipment. On those acres to be used for greenchop before the corn develops ears, a plant population in the range

of 30,000 to 35,000 is recommended. Material to be used later during ear development should be planted to harvest 22-24,000 plants per acre.

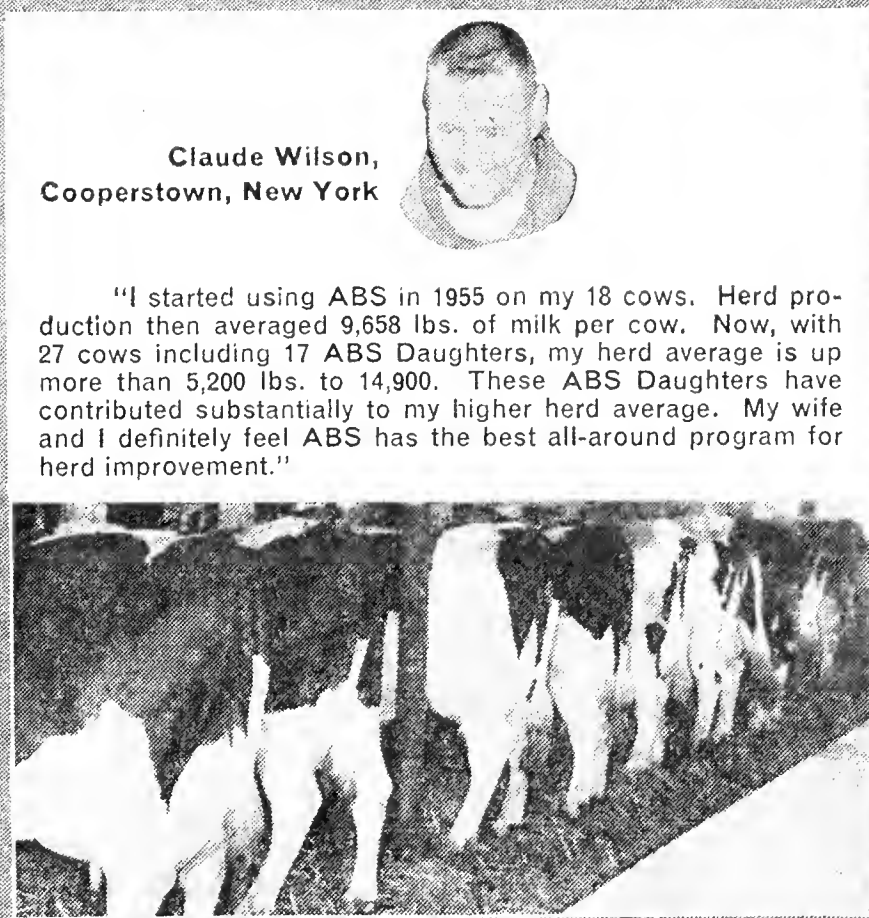
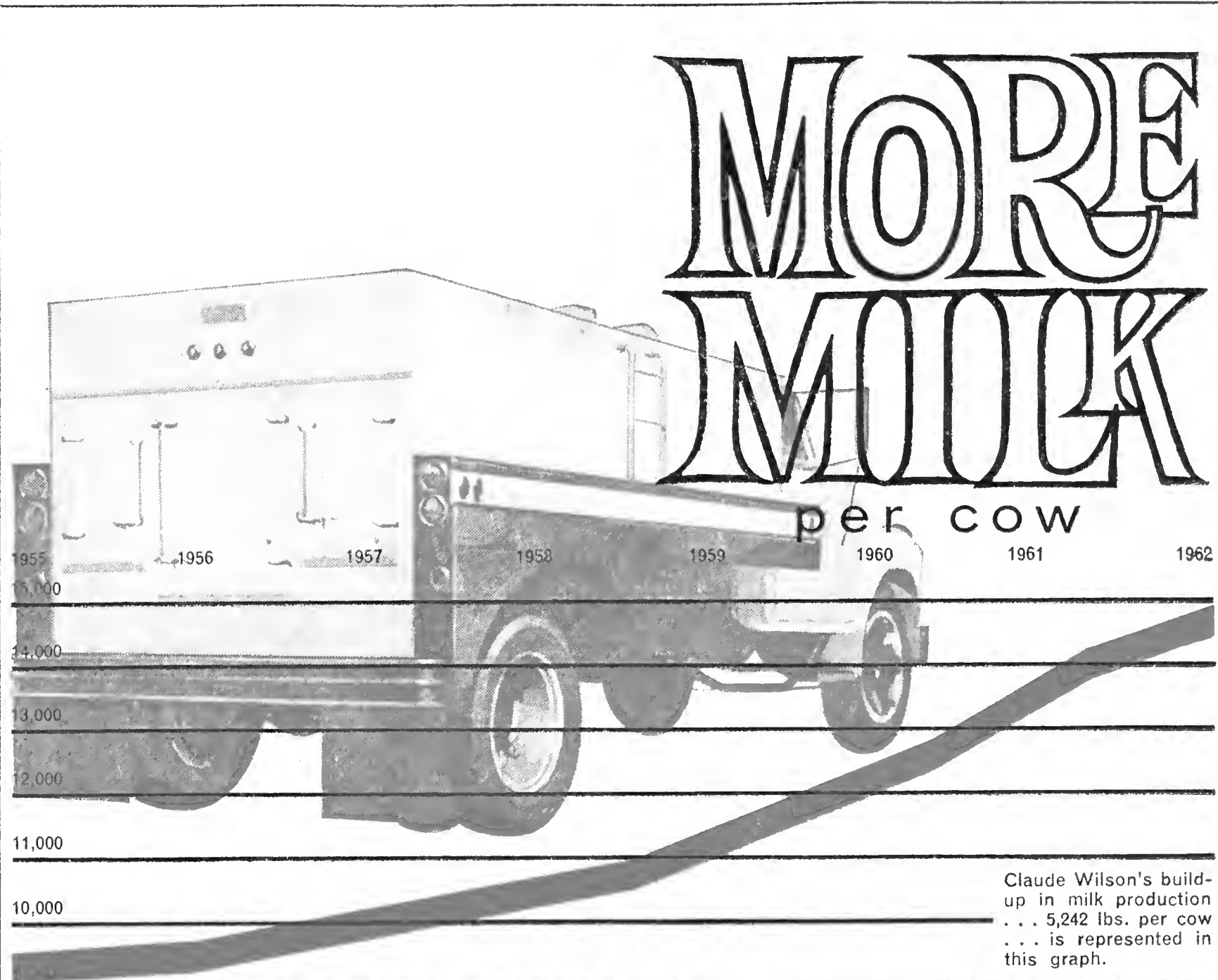
High Moisture Corn

For the dairymen who grow and feed corn grain, high moisture ear corn silage has real promise. This system makes it possible to harvest and store corn grain early in the fall, thereby reducing the weather risk and having corn ready to feed. Dairymen are quick to see the advantages of this method over that of picking, drying and cribbing ear corn—followed by the all-winter task of handling and grinding before feeding. Before shifting to high moisture ear corn in the silo, though, be sure you understand the whole system.

Here are the basic fertilization rates for corn.

Situation	Recommended Nutrients		Suggested Analysis and Application
	Ratio	Lbs. per acre	
	N - P - K*	N - P - K*	Amount per acre
10 T. manure AND a good legume sod	1-1-1	20-20-20	200 lbs. 10-10-10
10 T. manure and a grass sod plowed OR No manure and a good legume sod	1-1-1	40-40-40	400 lbs. 10-10-10
No manure and a grass sod plowed	1-1-1 and 1-0-0 or 1-2-2 and 1-0-0 or 2-1-1	40-40-40 plus 40-0-0 or 20-40-40 plus 60-0-0 or 80-40-40	100 lbs. 10-10-10 and 10 lbs. actual N or 250 lbs. 8-16-16 plus 60 lbs. actual N or 500 lbs. 16-8-8

* N=Nitrogen, P=phosphorous, K=potash.



Claude Wilson,
Cooperstown, New York

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You'll really appreciate an efficient big-capacity water heater when cleaning chores mount up! There's never any waiting for hot water. And you can install an electric water heater *anywhere*. No chimney or flues are needed — and no pilot light. There's an installation allowance for home electric water heaters, too. Call your Niagara Mohawk Farm Representative for details.



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BIG FARM PROFILE

(Continued from Page 34)

ample, the average monthly wages of full-time hired men on 18 of the farms (where all labor was hired) amounted to \$247 (compared with \$189 on all Pennsylvania farms as reported in 1960 by the Crop Reporting Service). Several operators were offering bonuses or incentive payments, and there was interest in providing share plans. Some operators found days off and vacations more important than higher wages.

A critical problem facing these operators was how to obtain sufficient credit. Estimates of total investment ranged between \$100,000 and \$400,000. The most common source of credit was from commercial banks; some obtained credit from production credit associations and the Federal Land Banks. More than half used credit for purchases of additional livestock and machinery; about one-sixth used short-term credit for operating expenses such as purchase of feed and fertilizer.

Some of the operators would have extended further if more capital had been available; some not now considering further expansion indicated they would enlarge their herds if capital was at hand.

Some of the operators interviewed were obviously very efficient; others were not. Some were paying the price for being innovators, making mistakes from which others would profit. There were enough efficient operators among the group to demonstrate that successful dairying on this scale is possible; and enough inefficient and unsuccessful operators were found to demonstrate that it isn't easy.

Country Pastor

Eyes Of The Heart

"BLESSED are the pure in heart; for they shall see God."—Matt. 5:8.

The word "heart" in the New Testament often means the whole personality, the balanced thinking, feeling, willing personality. "Pure" occurs 28 times in the New Testament, and is often translated, "clean." But its dominant meaning is "rightness of mind; singleness of motive."

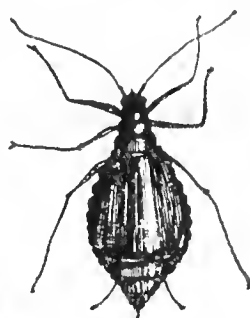
The eyes of the heart discern God's truth. Not a fractional, double-minded heart, but a whole, single, yet balanced heart, perceives, recognizes, identifies God's truth—His Supreme Authority. Jesus said, "I am the Truth." He incarnated the truth. Again He declared that "the light shineth in the darkness," which could not "put out" that light of truth.

The eyes of the heart discover the love of God. "Greater love hath not man—that a man lay down his life for his friends." Christianity is the only religion in which its God sacrifices Himself for his followers; other religions demand sacrifices to and for their gods. Christ died for Truth and Love of Man—self-sacrifice—"I lay it down of myself," said Jesus of His life.

The eyes of the heart behold the glory of God. II Corinthians 4:6 says, "We beheld the glory of God in the face of Christ." When Jesus' disciples asked Him to show them the Father, His reply was, "He that hath seen me has seen the Father." One commentator calls that "the most staggering statement in all human literature." It changed the whole world's picture of God. It changed the world!—Arthur Moody



GLF Malathion Protects Early Cut Forage



When Pea Aphids build up on your forage acres... watch out! These small ($\frac{1}{16}$ "), green, long-legged pests can multiply rapidly to cut the yield and quality of prime, first cutting alfalfa.

You can avoid losses caused by the pea aphid with a well timed spray of GLF Malathion. Just a pint per acre of GLF 55% Malathion Emulsifiable Concentrate (or $\frac{3}{4}$ pint of 77% GLF Malathion) is needed. Alfalfa weevil areas: GLF Malathion is highly recommended as a stubble spray immediately after first cutting. Plan to make this a part of your forage spray program.

GLF 5-STAR FORAGE TIP: When spraying, drive in the opposite direction from the way you will mow. The cutter bar will then be able to get all of that first cutting when you harvest.

Order Malathion today from your GLF Service Agency... headquarters for forage sprays and equipment. And this year, plan to make the most of your land with GLF's Complete Crop Service. Cooperative GLF Exchange, Inc., Ithaca, New York

GLF
5 STAR
FORAGE PLAN

FORAGE SPRAYS
and EQUIPMENT

-HOLD THAT LIVESTOCK!

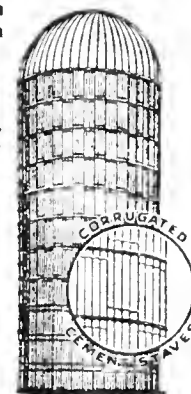
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4-H Dairy Champions

By DENNIS HARTMAN*

EACH YEAR the New York State Extension Service, in cooperation with the State dairy breed associations, honor six 4-H members who have excelled in over-all dairy achievement and herd building.

William S. Wright, son of Mr. and Mrs. Wellington C. Wright, Preble, has not only compiled a fine record of achievement, but has developed an outstanding herd of cattle. Starting with a registered Holstein calf in 1956, Bill has built his herd to 36 head, with production records to 18,354 pounds of milk and 643 pounds of butterfat.

Janet Nash, daughter of Mr. and Mrs. Charles Nash, Jamesville, started her Club project in 1957 with a calf which she received from her father. Since then, she has accumulated a herd of five cows and three heifers, six of her own breeding. She has taken a lion's share of the awards at the local fairs held in her area; these Jersey cattle also have the ability to produce.

Thomas Giles, son of Mr. and Mrs. Martin Giles, Scottsville, Monroe County, has accumulated a herd of 19 cows and 14 heifers since starting his 4-H Club project in 1954. He has sold 14 bull calves, three heifer calves and one cow. Tom is interested in both type and production. In 1958, his senior calf was selected as a part of the New York State herd which was exhibited at the Eastern States Exposition, the National Dairy Cattle Congress, and the International Dairy Show. From the production angle, his Brown Swiss cows excel.

Mrs. Gail Sine Brown, daughter of Mr. and Mrs. Martin J. Sine of Ithaca, Tompkins County, started her 4-H project in 1951 with a calf which she received from her parents. Since then she has bred and sold a number of animals, and at

present owns three cows and three heifers, all of her own breeding. Gail, too, has shown her Guernsey cattle at the local county fair and the New York State Exposition, and a complete list of her winnings would nearly make a book.

Peter Liddell, son of Mr. and Mrs. Herbert Liddell of Greenwich, started his Club work in 1957 with a purebred calf which he purchased from J. Martin Lang of Ballston Spa, New York. Today he owns three Milking Shorthorn cows.

Janet Miller, daughter of Mr. and

Mrs. Clarence Miller of Hornell, started her Ayrshire project in 1957 with a purebred calf, and since then has accumulated a herd of four cows and two heifers, after having sold seven calves.

The closest competitors for the Holstein Award were Robert Augstein of Greene County; Philip Bennett, Steuben; Warren Cowen, Chautauqua; David Reese, Chemung; and David Wells of Wyoming County.

The runners-up for the Jersey award were Dorothea Atwater of Cayuga County; Margaret Brooks, Cortland; Arlene Lewis, Tompkins; Norma Jean Walker, St. Lawrence; and Martha Gibbs of Yates County.

The closest competitors for the Brown Swiss award were Richard

Stephens of Onondaga County; Gordon Tyler, Delaware; Richard Tyler, Delaware; Richard Fox, Wayne; and John Denesha of St. Lawrence County.

Four-H members with Guernsey cattle whose records of achievement closely parallel that of Gail Brown were Lynn Huntley of Columbia County; Robert Parnell, Livingston; Martha Pengelly, Monroe; Carol Ann Calhoun, Rensselaer; and Roger Cook of St. Lawrence County.

Boys and girls with records of achievement near that of Janet Miller were Elaine Tuttle of Franklin County; Sarah Sine, Tompkins; Veronica Vamosy, Delaware; Ellen Woodward, St. Lawrence; and James Patsos of Onondaga County.



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Your tractor and hired man may stop working for you any second. An accident can happen that fast. Anytime. Anyplace. To anyone.

When such a misfortune touches your land, you need big trouble insurance that pays big bills now. And later.

You can have this protection. GLF Members Insurance is designed exclusively for farmers. It works like this:

GLF pays 80% of all covered medical bills after the first \$50.00 up to \$5,000 per illness or accident. If a different accident or serious illness occurs, payments start all over with a new benefit period. Cover-

age includes medical expenses at home as well as hospital confinement. It pays up to \$4,000 in life insurance, too, and covers your wife and dependent children and your hired man and his family. Complete coverage at a surprisingly low cost. More than 13,000 farmers in New York, Pennsylvania and New Jersey form the GLF Members Insurance group. And more farmers are joining every day.

Write today for the protection you may need tomorrow. Cooperative GLF Exchange, Inc., Ithaca, New York



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* 4-H Club Livestock Specialist

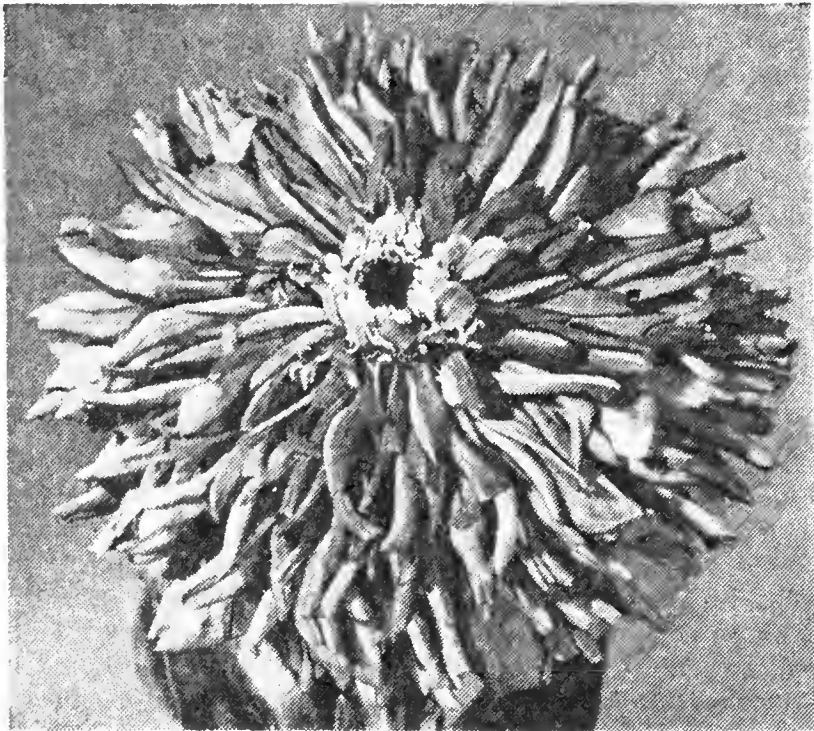


Photo: All-America Selection

Silver Medal winner, FIRECRACKER zinnia, has large scarlet-red blossoms with curled, wavy petals.

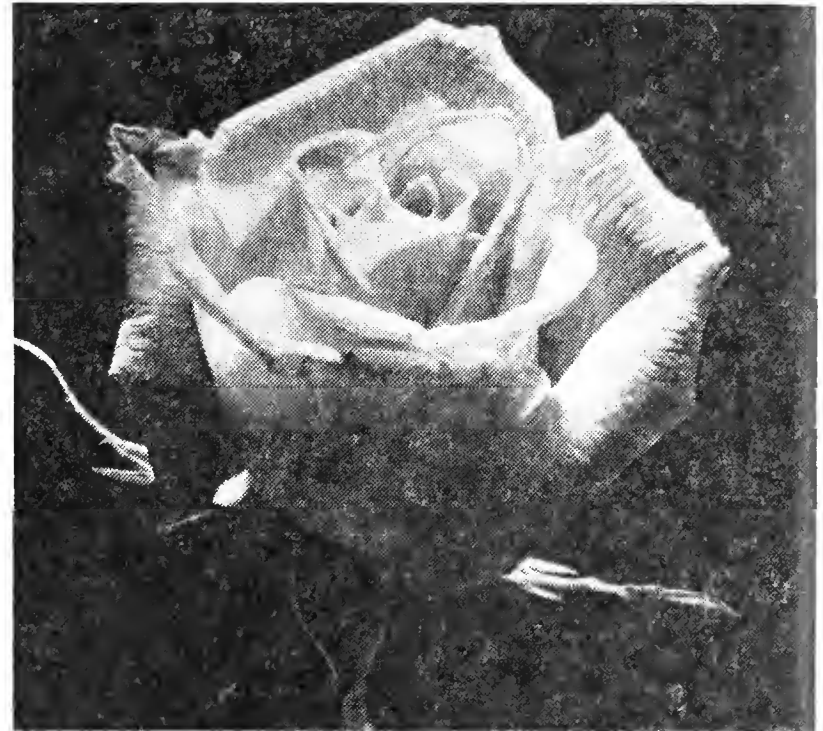


Photo: Jackson & Perkins

The orange-red hybrid tea rose, TROPICANA, was named "Rose of the Year" by a panel of more than 10,000 home gardeners.

PRIZE WINNING FLOWERS

By NENETZIN R. WHITE

ALL-AMERICA Selections for this year have given us just two annuals, rather than the usual dozen or so. Both of these are zinnias, and they have won the coveted and unusual Silver and Gold Medal Awards.

Gold Medal Winner

Zinnia THUMBELINA, the smallest of cultivated zinnias, is just about six inches tall. Most of the usual zinnia colors appear in these new plants, on blossoms one and a quarter inches in diameter. These little dome-shaped plants start blossoming when only three inches high, and new foliage keeps appearing to cover the blossoms as they fade.

THUMBELINA gets the coveted Gold Medal Award, the first issuance of this since 1950, when the red petunia Fire Chief received a gold medal. The picture of this "doll" will show you that it can be used in many ways—in borders, front group plantings, porch and window boxes, urns and pots, or in rock gardens. I think small pots of these would be precious on a low wall, the edge of a terrace, or on an outside table.

Silver Medal Winner

Another outstanding award is a Silver Medal to FIRECRACKER zinnia. The rich scarlet-red blossoms of this giant cactus-flowered zinnia are produced on huge stocky plants, thirty inches tall. This true hybrid zinnia has curled and wavy petals, which give the six-inch blossoms a light airy appearance. The blossoms are magnificent in the garden, and as cut flowers, they are truly exhibition blooms. These plants, of course, would be splendid in groups from

the middle to the rear of your borders, but do plant a few in large pots also, to put in any sunny place — on your patio, flanking a door, or as an accent for a wall. They should be the conversation piece of your neighborhood.

Do you know how "All-America Selections" are made? They are chosen by a non-profit institution set up for testing and rating flowers and vegetables from around the world. Twenty-six flower trial grounds and twenty-three vegetable trial grounds are located from Montreal to Vancouver across Canada, throughout the United States, and into the vicinity of Mexico City. Plants are tested under actual growth conditions and then compared by the accredited resident judges who grew them. It is rather unusual to have just two AAS winners in the flower field, but to have both of them medal winners is the "most."

Winners Last Year

The 1962 award winners numbered seven and should be even more popular this year, as more people will have seen them. Last year in March I described some of these, so I will just list them to refresh your memory. They were: dianthus BRAVO, zinnia OLD MEXICO, ornamental basil DARK OPAL, and zinnia RED MAN.

Dianthus BRAVO is one you will want to plant year after year. Its vivid, scarlet blooms literally cover the plant, and, like most pinks, its lovely fragrance is an additional attraction.

Ornamental basil DARK OPAL charmed everyone with its rich and unusual metallic purple foliage. Its purple flowers with white lips are a welcome change in flower arrangements. However, use this with caution, for its color should be in masses and next to a green that blends well. My advice with annuals (and most other plants too) is try to use them in masses and groups and not to plant them in rows or alternate several varieties. Large masses or groups are by far the most effective.

Rose of the Year

TROPICANA has been named the "Rose of the Year." In 1962 it was the All-America Rose Selection, and altogether has now won fourteen international awards. Guess you better really look at this one, hadn't you?

As the picture shows, the blossoms are perfection, a vibrant red-orange color, new in the rose world. They retain this color from bud to the last falling petal, and have a clean, spicy fragrance. This remarkable rose is extremely hardy and grows to about three feet in temperate climates and five to six feet in warmer climates.

Roses seem to be our most favored plant—and justly, for if properly planted, they will reward us with many colorful and fragrant flowers. Good drainage, sun, fertilizer, and a combination fungicide and insecticide are "musts." If you don't have a sunny spot with good drainage, make one. Raised bed plantings with their attractive walls are ideal for roses, or plant them in tubs for real luxury at low cost.

Follow These Rules

Remember the following six easy steps when planting your roses:

1. Soak the roots of packaged roses in water overnight before

planting; potted plants will not need this soaking. If the tops seem dry, "dunk" them a couple of times in a pail of water.

2. Dig a hole approximately 18 inches across and 18 inches deep so that the roots can spread out.

3. Soil mixture should be two-thirds peat to one-third soil, and rose experts advise no fertilizer at this time. Fertilize after your first big crop of blooms.

4. With this prepared soil mixture, make a cone in the bottom of the hole, point up. Place the plant over this, and the roots around it. Then, grasp the plant and hold it at the proper level, as indicated by the soil level that shows on the plant or bud stem, and fill in soil around roots.

5. Most experts say to now tamp the soil gently with your foot, but I always use my hands because it is easy to tear the young, tender roots. Also, I prefer to let lots of water

(Continued on Page 46)

CLAIRVOYANT

By Jane Morrison

The foothills, quilted brown and gray,
The far peaks draped with snow,
Look just the same as yesterday,
Yet creeks break through and flow
Joyfully, greenly on their way,
And somehow the robins know.

They come, although each twist of leaf
Lies in its bud; no thing
Blooms but a single crocus, brief
And yellow. Still they wing
Northward, bright emblems of belief,
Knowing the hour of spring.



In 1963, for the first time in 13 years, we have a Gold Medal Winner, the dwarf zinnia, THUMBELINA.

Photo: All-America Selection



VISITING

with

Home Editor Augusta Chapman

THIS is a little late to tell you what I did in January, but it's the first chance I've had, so here goes . . .

Again this year I went to Albany with the New York State Council of Rural Women. It seems to have become a sort of tradition for this group to plan their schedule so they can hear the Governor address the Women's Joint Legislative Forum on a Tuesday morning, and then be on hand for the annual meeting of the State Agricultural Society and the New York State Farm Products banquet the following day and evening.

We were also privileged to spend an afternoon with Mrs. Mildred Meskil, Senior Business Consultant for the Woman's Program of the State Department of Commerce. We heard key men from the Department tell what is being done to "sell" New York State opportunities and products both nationally and internationally, and learned of the many helps available through the Woman's Program for a person interested in starting a small business of her own, or in marketing a product made at home.

I was fortunate too in sitting next to Mrs. Meskil at the banquet and found her a delightful person—for one reason, she promised to send me the movie, "Farm and Forest," which we had seen while visiting the Commerce Department. As I looked at the beautiful pictures taken in all parts of our great State, I thought of a Grange lecturer's program Walt and I were responsible for and how much I'd like to show the movie, so was very happy when I found it could be borrowed. Wouldn't it be wonderful if all our wishes were so easily satisfied!

Before the banquet, we knew that the Distinguished Service Citation of the Agricultural Society would be presented to a citizen who had long and quietly rendered outstanding service to farmers, their organizations, and to education. I couldn't have been more pleased than when it was given to Harold M. Stanley who retired in 1961 after serving as secretary of the New York State Grange for many years. I think it was in 1935 when I first saw Mr. Stanley, and to me he has always exemplified the highest qualities of character and service for which the Grange stands.

Rural Traffic

We are likely to think of traffic hazards being especially high in the crowded, metropolitan areas where

far as dented fenders and other minor accidents are concerned, but the National Safety Council (observing its 50th Anniversary this year) tells us that three out of four traffic deaths occur in rural areas, and that nearly half of all urban residents killed in traffic accidents die on rural highways and roads.

The Council has prepared a traffic safety feature, **YOUR RURAL ROAD CHALLENGE**, which should be of interest to both urban and rural groups. A set of 36 color 35mm slides complete with script, pamphlets and discussion guide, dramatically shows hazards faced by drivers on rural roads. To find out how you can obtain **FREE** use of the slides in your state, write: Farm Department, National Safety Council, 425 North Michigan Ave., Chicago 11, Ill.

Deadly Mixture

From **TERNSTEDT**, a publication of General Motors Corporation, comes the following warning:

"Household bleach sold under various trade names is a solution of sodium hypochlorite. If any acid substance is added, it will become a poisonous chlorine gas."

stance is added, it will become a poisonous chlorine gas.

"Recently two cases were reported where housewives were using a well known toilet bowl cleaner. Not satisfied with the way the cleaner was working on stains, each of these ladies added some household bleach and stirred the mixture with a toilet bowl brush. Death came in a few minutes to one of these women, the other survived, but needed a long period of hospitalization and treatment."

This information is given on the labels of the household bleaches and bowl cleaners, but many of us don't take time to read labels, especially those on products so familiar to all homemakers.

(Continued on Page 46)



In a barn that's built for business — you'll naturally find a phone!

You spend a lot of working time in your barn. So why should you run to the house and back every time you have to make or receive a call? A barn extension phone lets you do business by telephone right there where you're working. Call your telephone business office, or ask your telephone man.

SAVE STEPS WITH A KITCHEN PHONE, TOO!

In a modern farm home, the kitchen is designed for family activities. A telephone helps make it even more of a useful home center. Choose a phone from a wide selection of styles and colors. Shown here, the popular space-saving wall model—available in four cheery kitchen colors...yellow, pink, beige and white.



The Safety Council believes that nine out of ten drivers have an elevated sense of their own ability.

drivers, using the turnpikes and free-ways, travel bumper to bumper, day after day. This is probably true as



New York Telephone

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We make this spectacular 1/2 price sale in order to gain new friends.



GROW ALL YOU CAN EAT FOR AS LITTLE AS PENNIES PER BASKET

From the U.S. Dept. of Agriculture came news of a new "SUPER-SWEET" Strawberry plant, unique among Strawberry plants. A Berry Plant hailed by growers as one of the hardest, most prolific strawberry plants, they have ever known. Virus Free, resistant to most common diseases — wilt, leaf spot, root rot, drought, etc. "SUPER-SWEET" will produce perfect crops where many varieties would be complete failures.

TESTED BY THE WEST VA. & MISSOURI AGRICULTURAL EXTENSION SERVICE RANKS AMONG THE TOP IN BOTH STATES
A recent report from the University of Missouri Agricultural Experimental Station proved "SUPER-SWEET" excellent in firmness, uniformity, color and abundance. "SUPER-SWEET" was compared with 10 other varieties in 17 locations in official tests in W. Va. It led all others in average yield for 1960-1961 W. Va. Ext. Service Misc. Pub. #282. In one location alone, it produced at the rate of 16,000 quarts per acre. Official tests in many states, proved "SUPER-SWEET", Div. of Pre-Seeded Prod. Co., Inc., so vigorous and prolific it consistently ranked as the leading variety. NOW, you can be among the very first in your area to grow this sensational "SUPER-SWEET" berry. Your neighbors will be awed when they see your crop of hundreds of berries... SOME AS LARGE AS SILVER DOLLARS.

BEST OF ALL YOU CAN PICK YOUR FIRST CROP WITHIN 60 DAYS AFTER PLANTING!
From the New England coast to the borders of Texas new records have been set with "SUPER-SWEET" Strawberry plants. Not only will you get baskets of berries... firm, red, large, luscious berries...

SUPER-SWEET NURSERY SALES, Dept. B-556,

NOW! YOU CAN START TO PICK HUNDREDS OF STRAWBERRIES Within 60 Days!

UNIQUE CLIMBER... TRAIN TO GROW UP-UP A TRELLIS, WALLS, POLES, etc.

THIS YEAR'S 1/2 PRICE SALE

NAT. ADV. & SOLD LAST YEAR AT ~~5 for \$2~~ NOW ONLY **6 \$1** for 1

ries... But you will start to harvest your first crop within only 60 DAYS. Berries so delicious you'll have them regularly for breakfast, for strawberry jam, freeze them and enjoy them all winter long!

WILL GROW IN VIRTUALLY ANY GARDEN SOIL

It takes practically no care to grow these Jumbo "SUPER-SWEET" berries. Need only a few sq. ft. to grow. You'll have more fruit per sq. ft. than you ever hoped or dreamed of. You will beautify your grounds and gardens with lustrous green foliage and spectacular white blossoms. Even a rank amateur can now harvest the most magnificent crop of mouth-watering Strawberries you have ever tasted. These plants multiply rapidly, each Mother plant bearing many daughter plants. Once planted you will harvest increasingly large crops each year.

THIS MAY BE OUR LAST OFFER AT THE UNBELIEVABLY LOW, LOW PRICE OF 6 PLANTS FOR ONLY \$1.00. ORDER NOW!

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"Shrimp Meal in a Dish," accompanied by crisp relishes, hot rolls, and dessert, makes a wonderful luncheon for family or guests.

It's Fish and Seafood Time!

By ALBERTA D. SHACKELTON

FISH AND shellfish are always valuable in the diet for economy, nutrition, and variety. They rate particularly high for meatless meals during this Lenten season, since they provide excellent protein. They also furnish iron, thiamine, riboflavin and, if from salt water, good iodine.

Fish Facts

For each serving of fish allow 3/4 to 1 pound of whole or drawn fish; 1/2 pound of dressed fish (no heads or tails); 1/3 pound of steaks, fillets, and fish sticks.

Refrigerate fish immediately after purchase. For top quality, use fresh fish the day of purchase, frozen fish within a week. Do not refreeze frozen fish which has thawed.

Cooking Fish

"Don't overcook" is the one basic rule for all fish cookery. Fish is done as soon as it flakes easily with a fork. Handle fish as little as possible to prevent breaking up.

Almost any fish can be broiled, baked, fried, or poached, so vary your method of preparation. Heavy duty aluminum foil placed on broiler or oven pan eliminates problems of washing fishy dishes. You need not thaw frozen fish before cooking unless you wish to bread or stuff it. Just allow a little more time for cooking.

Make the serving of fish more attractive by the right seasonings, sauces, and simple but colorful garnishes.

CORN-CRISPED FISH

(Oven-fried)

- 1 to 1 1/2 pounds of any fish fillets cut in serving-sized pieces
- 1/2 cup UNDILUTED evaporated milk
- 1 cup cornflake crumbs
- 1 teaspoon salt
- 1/4 teaspoon pepper
- 1/4 teaspoon paprika, if desired
- Salad oil or melted butter

Dip each piece of fish into the undiluted milk and then roll in the crumbs which have been combined with the salt, pepper, and paprika. Place coated pieces of fish in single layer without crowding in a foil lined shallow baking dish. Sprinkle lightly with salad oil or melted butter. Bake in a quick moderate oven (375°) 20 minutes or longer, depending on size of pieces. Serve with lemon slices,

tartar sauce, or tomato sauce. Serves 4.

For a variation of this method of "oven-frying," dip fillet pieces in salted, fresh milk and roll in fine dry bread crumbs mixed with a little paprika. (Be sure to use bread crumbs, as cracker crumbs, cornmeal, or flour do not oven-brown well.) Bake in very hot oven (500°) 10 to 15 minutes, or until fish flakes easily.

Shrimp

Shrimp are available in several sizes, from the large size of 21 to 25 per pound to the small size of 35 or more per pound, and may be purchased fresh or frozen. If you have a freezer, you can take advantage of "specials" on the 5 pound frozen blocks, cook them, and freeze the cooked shrimp for later use in various dishes. Cook before or after peeling, as desired.

To cook before peeling, place 1 1/2 pounds shrimp in 1 quart boiling salted water (1/4 cup salt), return quickly to boil, and simmer 5 minutes. Drain, peel, remove black veins, and chill. Makes 3/4 pound.

To cook after peeling, peel shrimp, make shallow cut lengthwise down back of shrimp, wash, place in 1 quart boiling salted water (2 table-spoons salt), return to boil quickly, and simmer 5 minutes. Drain and chill. Makes 3/4 pound. Avoid overcooking shrimp.

SHRIMP MEAL IN A DISH

- 1 pound fresh or frozen shrimp, cooked as above
- 1/2 cup butter
- 1/2 cup thinly sliced onions
- 1/2 cup flour
- 1/2 teaspoon salt
- Dash pepper
- 3 cups milk
- 1 cup cooked carrots
- 1 cup cooked peas
- 1 can oven-ready biscuits or your own

Reserve several whole shrimp for garnish. Cut rest in chunks. Cook onion in butter until tender but not brown. Stir in flour, seasonings, and gradually add milk. Cook until thickened. Fold in carrots, peas, and shrimp, and place in greased 1 1/2 quart casserole. Arrange biscuits around edge of casserole and place whole shrimp in center. Bake in a hot oven (425°) 12 to 15 minutes or until biscuits brown. Serves 6.

(Continued on Page 45)

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4564. Pretty tab-collared style with six-gore skirt. Printed Pattern in Half Sizes 14½-24½. Size 16½ takes 3½ yards 39-inch fabric. 35 cents.

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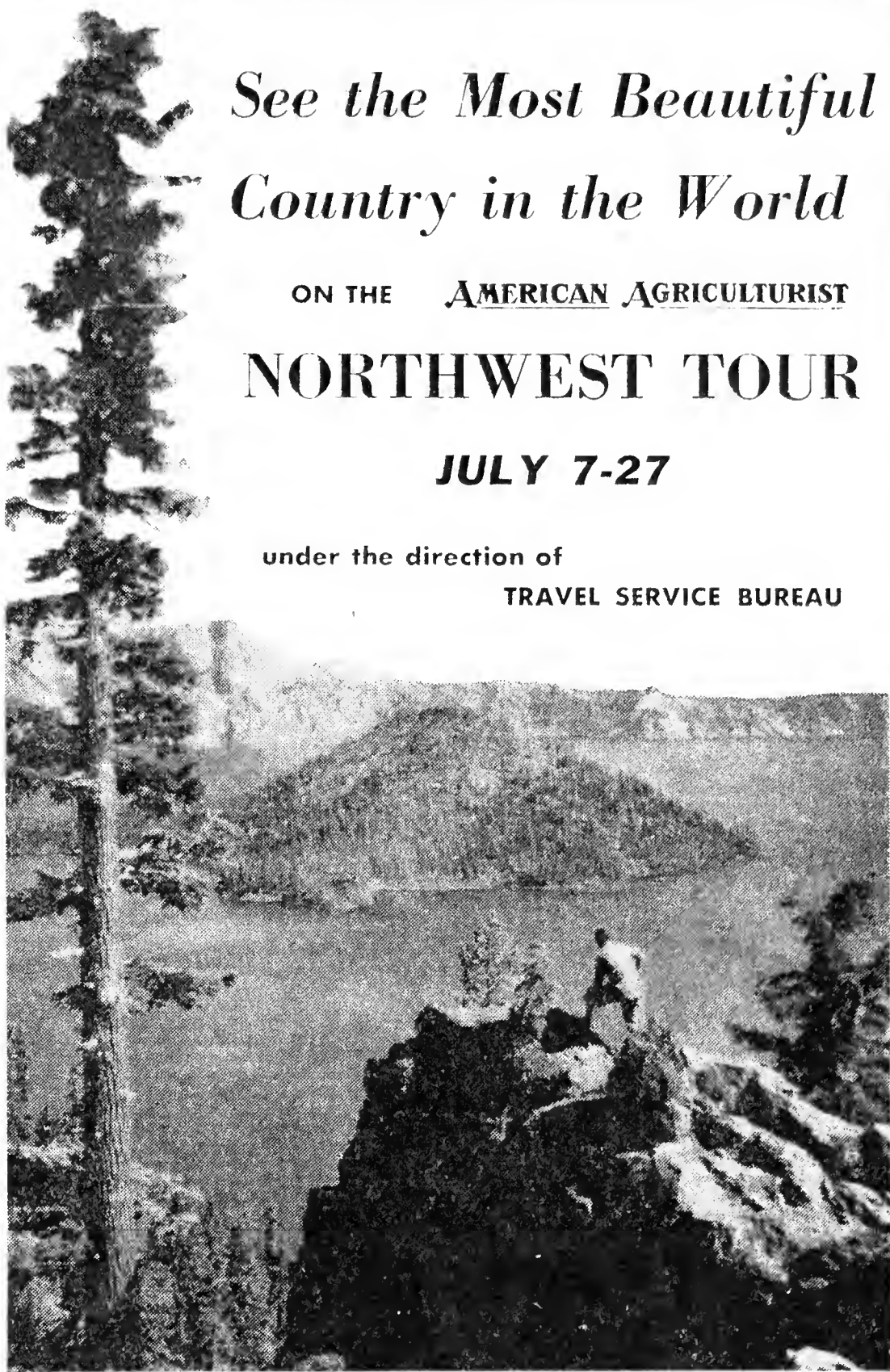
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6HP ROTARY garden tiller and tractor combination \$139.00 special 32" twin rotary mower attachment and sulky available. McLean, 324 West Tenth, Indianapolis 2, Indiana.

FORD and Ferguson Rear Tool Bar Guide. No more side movement. Will keep your cultivator or any other tool in place \$9.95. Prepaid to you. Check with order. Rolling Equipment Co., 1125 Military Rd., Kenmore 17, N. Y.

100 USED MILK COOLERS, front and top openers all sizes—completely reconditioned. Also complete line of used farm machinery. All at the right prices. John M. Saums, Rt 69 & 202 Circle, Flemington, N. J.

LAMINATED RAFTERS & Arches for barns and sheds. Douglas Fir bonded with completely waterproof glue. Popular sizes stocked. Extra heavy rafters — extra low prices. Box S-33, Unadilla Silo Co., Unadilla, N. Y.

TWO EGG WASHERS, electric egg grader, 400 chick, Battery Brooder, 620 egg, Incubator. Apartment size gas heater, 500 laying cages. Robinson's Fruit Farm, Bardett, N. Y. Phone Ki 6-2588.

CHAINS ALL MAKES chain saws, C. Loomis, Bainbridge, N. Y.

WANTED—USED MILKING Parlor pipeline equipment, weight jars. Paul Birdsall, Holcomb, N. Y.

HANDY TORCH has 99 uses — Splits rocks, sprays, irrigates, incinerates 800,000 enthused users. Weighs 20 lbs. Burns kerosene. Free descriptive literature. Sine, AA2, Quakertown, Pa.

135 CRAWLERS AND WHEEL TRACTORS. D-2 Cat, with winch-\$1500. Cat, D-4 with winch and blade—\$3250. International TD-6 with winch and blade—\$2795. Oliver OC-4 with winch and blade—\$1650. Oliver OC-4 with winch and blade—\$2895. John Deere 440 with winch—\$3250. John Deere 420 with blade—\$1200. John Deere 420 with loader—\$1995. 3-AG 6's with blades. Cletrac B with blade—\$2650. Oliver OC-96 loader—Save \$3,000. 2 Oliver OC-12 dozers, rebuilt, 100 used wheel tractors, all makes—\$100 and up, 100 used balers, no reasonable offer refused — deliver anywhere in New York or Penna. Don Howard, Canandaigua, New York.

GREENHOUSES

GREENHOUSE BUILDING and repair. Houses built to suit your needs. Robert Fuller, RD1, Box 359, Sussex, N. J.

HAY & OATS

FIRST AND SECOND cutting alfalfa, mixed trefoil and other grades of choice hay delivered by truckload. Weights and quality guaranteed. Bates Russell, East Durham, N. Y. Phone Melrose, 4-2591 before 8 A.M. or after 5 P.M.

WANTED—CLOVER-TIMOTHY mixed, alfalfa, wheat, rye straw. Top prices. S. A. Rauch, New Hope, Penna. Phone 215-862-5300. **ATTENTION FARMERS:** — Needing hay? Prices given on top quality dairy hay. Timothy Alfalfa Mix, straight Timothy, Timothy Clover mix—2nd cutting. Try us first. Eldreds Farm Supply, Honesdale, Pa. Telephone Galilee 59R120.

ATTENTION—Hay and feed d alers. Needing hay? Brokers for Midwestern and Canadian shippers. Call or write for quotations. Eldreds Farm Supply, Honesdale, Pa. Phone: Galilee 59R120; 59R2.

FOR SALE: Dehydrated alfalfa pellets. Bean Brothers, Ovid, New York.

CAN DELIVER GOOD dairy hay in ear load lots or truck delivery. Also Alfalfa Pellets equal to 2nd cutting alfalfa in protein. This is a real buy. D. Arnold Boyd, York, New York. Phone—Geneseo 892.

FLOWERS & BULBS

CREeping PHLOX, 12 for \$1.00. Catalog free. Low direct prices. Planters Nursery, Dept. P, McMinnville, Tenn.

25 QUALITY GLADIOLUS bulbs \$1.00. Medium size. Mixed colors. Postpaid. Alloway Gladiolus, RD #1, Lyons, New York

GLADIOLUS BULBS mixed, \$1.00 hundred. Walter Green, Box 105, Goshen, N. Y.

NURSERY STOCK

EVERGREEN SEEDLINGS and transplants conservation shrubs. Finest Christmas Tree stock, ornamentals. Write for free complete price list. Genesee Valley Nursery, Belmont, New York

EVERGREEN PLANTING STOCK—Christmas trees, ornamentals, timber. Free catalog and planting guide. Suncrest Nurseries, Box 1, Homer City, Pa.

EVERGREEN SEEDLINGS and transplants in leading varieties for Christmas tree production. Assort of ornamentals. Free price list and planting guide. Flickingers' Nursery, Saga, more, Pa.

1,000 HORTICULTURAL items — tree seeds, seedlings, grafts, rooted cuttings, trees, shrubs, evergreens, mushroom growers supplies — spawn, pre-spawned compost, pre-planted trays and pots. Sample pots \$1.75; 1-85.50 prepaid. Catalog, Mellinger's, North Lima 42, Ohio

CULTIVATED BLUEBERRY BUSHES, twelve 10"-18", \$6.95; six 18"-30", \$5.95, postpaid. Morningbrook Plantation, Upper Hampden Road, Monson, Mass.

BABY EVERGREENS SEEDLINGS, transplants, Xmas tree stock. List free. Neuner's Nursery, Elcher Road, Pittsburgh 2, Penna.

COLORADO BLUE SPRUCE — 25 for \$3.75 postpaid 10 to 14 inch. Heavy root systems. Free catalog and planting guide. Suncrest Nurseries, Box-J, Homer City, Pa.

25 EVERGREENS—\$5. Healthy, selected trees 8" to 16" tall three to four years old. Five each: Colorado Blue Spruce, Norway Spruce, Austrian Pine, Scotch Pine, White Fir. Postpaid planting time. Free Evergreen Catalog. Musser Forests, Inc., Box 83-CC, Indiana, Pennsylvania.

PIET TREE SEEDLINGS. Send for price list. Joyce & Ed's Nursery, Plymouth Rd., Ashtabula, Ohio.

CULTIVATED BLUEBERRY bushes, latest varieties, producing giant size berries, 4-5 year old bushes, \$6.50 postpaid, order early, supply limited. Brookside Blueberry Nursery, Pelham Rd., Amherst, Mass.

BLUEBERRIES bearing age \$1.15. Free catalog. Commonfields Nursery, Ipswich, Mass.

SENSATIONAL APPLE Discoveries—Exclusive patented Starkspur Golden Delicious and famous Starkrimson! New spur-type trees bear years earlier. Also dwarf trees for giant-size apples, peaches, pears for backyard and orchards. Stark-Burbank Standard Fruit Trees roses shrubs. Color-Ph to Catalog free. Stark Bros., Dept. 30333, Louisiana, Missouri.

SALE—CHRISTMAS & Forest Tree Seedlings 20 Blue Spruce 4yrtr. \$3.00 Prepaid. Unadilla Nursery, Johnson City, N. Y.

GOVERNMENT SURPLUS

BOLT AND NUT assortment N.F. and N.C. thread—Hexhead assorted sizes 1/4 to 3/8 to 6 inches long \$15.00 per 100 pounds. FOB, quality guaranteed. Check with order. Rolling Equipment Co., 1125 Military Rd., Kenmore 17, New York.

JEEPS, BOATS, TRUCKS, tractors, airplanes, guns, tires, tools, cameras, Walkie-Talkies, Misc. Individuals can now buy direct from Government. New nationwide U.S. Depot Directory & Instructions \$1.00. Brody Surph Box 425-A, Nanuet, N. Y.

JEEPS \$278. AIRPLANES \$159, boats \$7.88, generators \$2.68, typewriters \$8.79 are typical government surplus sale prices. Buy 10,001 items wholesale, direct. Full details, 627 locations and procedure, only \$1.00. Surplus, Box 177-C63, Abbottstown, Penna.

VETERINARY SUPPLIES

NEW! NOW TREAT Mastitis for less than 21¢ with new Uni-Power Infusion! Each dose contains: 100,000 units procaine penicillin, 100 mg. dihydrostreptomycin, 100 mg. neomycin, 750 mg. sulfathiazole, 750 mg. sulfamerazine, 5 mg. cobalt. Infuse directly into the infected quarter by withdrawing 10cc (1 dose) into a syringe with a needle, then replace needle with an infusion tube. Also ideal when drying off a cow—Infuse 10cc of Uni-Power into each quarter—allow to remain until the cow freshens. "An ounce of prevention is worth pounds of milk." Recommended by leading veterinarians and dairy experts. Per 100cc bottle (10 doses) \$2.35. Six bottles \$2.25 each. Order 12 for \$25.00 and receive free syringe, needle and infusion tube. At your Anchor of New England dealers or order direct from Anchor Serum Company of New England, Dept. A-4, Topsfield, Mass. Write for free veterinary supply catalogue and health guide. Please note: As always, milk should be withheld from human consumption 72 hours after the last treatment.

REAL ESTATE

FARMS—FINGER LAKES Area—all types and size farms. Retirement homes—hunting land. Lakeshore properties. H. M. Stocking, Broker, Dundee, New York.

FOR SALE: 10 room house, 1 1/2 acres land, Hartford, N. Y. Price \$5,000. Dryden Real Estate, PO Box 207, Dryden, N. Y.

NEW MEXICO LAND bargain. Big 1/2 acre ranchettes for only \$199 complete \$5 down, \$5 a month. Just a short distance from the heart of growing Deming, New Mexico (Pop. 8500). Write today for free color photos, facts, maps, etc. Deming Ranchettes, Dept. N-131A, 112 W. Pine Street, Deming, New Mexico.

AGENTS WANTED

50 OR MORE DAILY for route work. Man or woman. Full or part time. Write McNess, Freeport 27, Ill.

STRANGE "DRY" WINDOW Cleaner. Replaces messy rags, liquids. Simply glide over glass. Samples sent on trial. Kristee 151, Akron, Ohio.

SIGNS

NO HUNTING SIGNS any material, lowest prices. Free sample—catalog: Signs, 54 Hamilton, Auburn, New York, Dept. G.

PLASTIC POSTED Land Signs. Durable, in expensive. Free sample. Minuteman, Stanfordville, New York.

NO TRESPASSING SIGNS. Free samples, prices. Cassel, 65 Cottage, Middletown, N. Y.

HELP WANTED

LARGE DAIRY FARM needs experienced men for milking cows. Excellent housing and boarding house on premises. Steady work, top wages and bonus for right men. Call Mr. Bernon, Garellek Bros. Farms, Inc., Franklin, Mass. 528-9009, days or Woonsocket, R. I. PO Box 9-7996 after 6:00 P.M. or Mr. Harvey Daskin at Franklin, Mass. 528-2276.

DAIRY FARM NEEDS an experienced and reliable man to work with Holsteins and general farm work. Small apartment furnished. Edward Marshall Mecklenberg Road, Ithaca, New York.

MARRIED MAN to help operate fruit farm. Position for wife in farm pie bakery if desired. Hill Top Orchards, Bradford, Conn.

LARGE POTATO FARM needs steady man used to modern farm machinery. Reply to Henry Schwenk Bridgehampton, N. Y.

SILOS

GLUE LAMINATED RAFTERS AND ARCHES

Send for further information and prices.
Box BR-33 Unadilla Silo Co., Unadilla, N. Y.

AUTOMATIC FEEDING saves time and hard work. Feeding mechanically with the Silomatic Unloader. "Seri-Feed'n Bunk Conveyor and Pro-Met'r concentrate dispenser. Proven equipment guaranteed. Free pictures and plans. Dealer inquiries invited. Write Van Dusen & Company, Inc. Dept. A, Wayzata, Minn.

SILOS, SILO UNLOADERS, barn cleaners. Nold Farm Supply, Rome, N. Y.

A WOOD SILO is your best investment—wood means warmth, with little frozen ensilage... no acid riddled walls. For catalog write Box ES-33, Unadilla Silo Co., Unadilla, N. Y. Also manufacturers of glue-laminated arches and rafters for barn and sheds. Write for information.

STAMPS & COINS

OLD COINS BOUGHT! Illustrated catalog 25¢. Hutchinson's, Box 6256, Philadelphia 36, Pa.

PHILATELIC JUNGLE 10¢. Fifteen zoological specimens. Approvals included. Free watermark detector. Crown Stamps, Virgil 311, Ontario.

101 DIVERSIFIED BRITISH Commonwealth 10¢. App ovals included. Niagara Stamps, St. Catharines 511, Ontario

WANT INDIAN HEAD pennies before 1879. Norman Tremper, West Winfield, N. Y.

25 LARGE AMERICAN Commemoratives 10¢. Accompanying approvals. Free perforation gauge. Linstamps, St. Catharines 111, Ontario

SALESMEN WANTED

SENSATIONAL NEW longer-burning Light Bulb. Amazing free replacement guarantee—never again buy light bulbs. No competition. Multi-million dollar market yours alone. Make small fortune even spare time. Incredibly quick sales. Free sales kit. Merlite (Bulb Div.), 114 E. 32nd, Dept. C-74E, New York 16.

RETIRED FARMERS' Be active. Make money selling high quality Seeds locally. Instant commissions. Box 514-D, American Agriculturist, Ithaca, New York.

AUCTIONEERS

AUCTIONEERS—Livestock and farm auctions. Complete auction and pedigree service available. Harris Wilcox, Phone—Bergen 146, N. Y.

FOR TOPS IN Livestock Marketing—Regular weekly sales and farm auctions; Empire Livestock Marketing Cooperative.

TRAVEL

ALL WE KNOW is what our travelers tell us! They say our 19 day 10,000 mile Grand Circle Western Tour is the greatest travel value in America for only \$339.00, no tax. For summer of 1963 this tour is better than ever! See Grand Canyon, Boulder Dam, Las Vegas, Mexico, Hollywood, San Francisco, British Columbia and Lake Louise by deluxe bus. Send for free leaflets. Shanly International Corp., 528A Blue Cross Bldg., Buffalo, N. Y.

GOURD SEEDS

MAMMOTH GIANT GOURDS. Largest known. Round type. Specimens up to five feet circumference. Twenty seeds. Planting cultural directions \$1.00 postpaid. Circular, Odom's, Pinola 8, Mississippi.

HEALTH

EAR NOISES relieved!

... Thousands Reported wonderful relief from ear noises and poor hearing caused by catarrhal (excess fluid mucus) conditions of the head. Symptoms of catarrhal deafness and ear noises are: Constant flow of mucus in nose and throat; Hear—but don't understand words; Hear better on clear days—worse on bad days. Easy to use, Elmo Palliative HOME TREATMENT. NOTHING TO WEAR! Write for proof of relief and 30 day trial offer! Pay only if helped! **THE ELMO CO., Dept. 3AA1, Madrid, Iowa**

WOMEN'S INTEREST

BAKE NEW GREASELESS Doughnuts in kitchen. Sell stores. Free recipes. George, 3605 South 15th, Minneapolis 7, Minnesota.

BEAUTIFUL NYLON HOSE 3 pairs \$1.00. Sheermills, 21831 Cloverlawn, Oak Park, Michigan.

DRESSES 21¢; shoes 39¢; men's suits \$4.95; trousers \$1.20. Better used clothing. Free catalog. Transworld, 161D Christopher, Brooklyn 12, N. Y.

QUILT PIECES: 5 pounds — \$2.00. Cottons; guaranteed. Elizabeth Thompson, 21 High, Brookline 46, Massachusetts.

DECORATE WITH WALLPAPER. Free 1963 catalog. 99 new washable patterns. Decorating suggestions and color schemes. Instructions for measuring and hanging. We pay postage. Penn Wall Paper Mills, Dept. O, Bridgeton, New Jersey.

YOUR CHURCH or group can raise \$50.00 and more, easy and fast. Have 10 members each sell only twenty 50¢ packages my lovely luxurious Prayer Grace Table Napkins. Keep \$50 for your treasury. No money needed. Free Samples, Anna Wade, Dept. 9HC1, Lynchburg, Va.

NEEDLECRAFTERS ATTENTION — stamped linens for embroidery or painting; knitting yarns and kits; crocheting, needlepoint, weaving, rugmaking supplies—many new ideas. New York and Texas warehouses for speedy service. Free catalog. Merrihue, Dept. 552, 2727 W. 7th St., Fort Worth, Texas.

QUILT PIECES! Beautiful percales guaranteed. 1 1/4 lbs. \$1.00, 3 1/4 lbs. \$2.00. Postpaid. Ward Gould, 92-A North, Medfield, Mass.

RUG BRAIDERS: Complete supplies available; pre-cut and pre-rolled wool—36 standard colors. Braiders—needles—lacing and stand. Send 35¢ for color chart. Carten Redi-Braid, P. O. Box 61, Devon, Conn. Dept. A

CHURCH GROUPS, CLUBS, raise funds quickly! Many new money-makers. Free catalog. The Brisko Company, Shaftsbury 5, Vt.

QUILT PIECES, 10 pounds new stock. Or 10 holders, mats, blocks; or rug; \$4.00 postpaid. Sample 50¢. Send 10 pieced blocks get 5 pounds pieces. 373 Haines Falls, N. Y.

QUILT PIECES 6 1/2 pounds beautiful cottons \$2.00 postpaid. Bromberg, 1558 Minford Place, Bronx 60, New York

FISHING

COLLAPSIBLE FARM-POND-Fish-Traps; animal traps. Post-paid. Shawnee, 3934E Buena Vista, Dallas 4, Texas.

EARTHWORMS

FREE PICTURE FOLDER. "How to Make \$3,000 Yearly, Sparetime. Raising Earthworms!" Oakhaven-5, Cedar Hill, Texas.

REAL ESTATE WANTED

WANTED FARMS, land buildings, camps, radius 30 miles of Pittsfield, Mass. Write Atlas Realty, 24 Hamlin St., Pittsfield, Mass.

TARPAULINS

CANVAS TARPULINS—Direct from factory—nylon reinforced eyelets, medium weight. Cut size—7x9 feet, \$5.67; 8x12 feet, \$8.64; 12x14 feet, \$15.12. Write for complete list of sizes and samples. Our 67th year. Eureka Tent & Awning Co., Inc. Binghamton, New York.

WOOL

SEND WOOL to us for beautiful, warm blankets. Free literature. West Texas Wooler Mills, 443 Main, Eldorado, Texas.

LIVESTOCK AUCTIONS

FOR TOPS IN Livestock Marketing—Regular weekly sales and farm auctions; Empire Livestock Marketing Cooperative.

BUILDINGS

FARM BUILDINGS for all purposes, low cost, easy terms. Nold Farm Supply, Rome, New York.

BOOKS

PROPHET ELIJAH Coming Before Christ, Wonderful free book. A. Meziddo Mission, Rochester 19, New York.

USED BOOKS. No lists. State specific wants. J. Rasmussen, Box 273, East Northport, N. Y.

WANTED TO BUY

USED JAMESWAY GUTTER Cleaner complete or used Drive-unit. Carl Wornhouse, Sherman, N. Y.

I. H.P. GRAIN ROLLER Mill. Fayette Binck, Averill Park, N. Y.

WANTED OLD GUNS especially Winchesters, describe and price in first letter. L. A. Hart, Route 46, Hackettstown, N. J.

MISCELLANEOUS

BONANZA FOR GENUINE lover of land; creative, objective mind; wood, mineral horticultural possibilities—write Mrs. L. Emerson 8 Little Ave., Middletown, New York.

STOP ITCHING Promotes healing of piles, psoriasis, eczema. "Roberts Reliable Salve" effective since 1888. Satisfaction guaranteed. 3 oz. \$1.00 postpaid. Roberts Pharmacy, Lisbon Falls, Maine.

CESSPOOLS, SEPTIC tanks, outhouses, clogged drains cleaned. Deodorized without digging and pumping. Sursolvant reduces contents, reclaims leachability. Old systems made to work like new. Free details. Electric Sewer Cleaning Co., 294 Lincoln Street, Allston 34, Mass.

SNOWSHOES — FINEST quality, large selection \$15.00 to \$25.00. Satisfaction guaranteed. Circular free. Anderson & Sons, Cumberland Center, Maine.

AFRAID OF LIGHTNING? Don't be—call us for free inspection. Survey and exact cost on complete lightning rod service. Morse-Collins, Inc., 148 Coddington Road, Ithaca, N. Y. Phone AR 2-8550.

MISCELLANEOUS

PARTS FOR STOVES, furnaces; coal, oil, gas, electric. Empire Stove Co., 793 Broadway, Albany, New York.

QUICK-JOIN FOR septic troubles, outdoor toilets. New, exclusive enzyme-bacterial formula digests solids grease, paper, etc. Ends backups, odors, pumping, dipping. Harmless to packets. \$2.50 postpaid. 12 \$4.50. Money back guaranteed! Ryter Co., Mardelia 20, Minn.

HUNDREDS MONEYMAKING Opportunities. Free copy. Popular Mechanics 740-CT Rush Chicago 11.

MAKE YOUR OWN WILL. Legal "Will Forms" complete ready to fill out with instructions. Two copies 50¢, five copies \$1.00. Pioneer, Tunnel, Marietta 18, Ohio.

"BACKWOODS JOURNAL" — Paradox 16, New York. Unusual Outdoor Publication. \$2.00 year, sample 35¢. Special Inspirational Nature Guidebook—\$1.00.

SONGPOEMS WANTED! Collaborate with professional songwriters, equally. Share royalties. Songwriters Contact, 1619-G Broadway, New York 19.

YOUR CHURCH or group can raise \$50.00 and more, easy and fast. Have 10 members each sell only ten \$1 bottles my famous Double Strength Int. Vanilla Flavoring. Keep \$50 for your treasury. No money needed. Write Anna Elizabeth Wade, Dept. 9HC2, Lynchburg, Va.

FREE WHOLESALE CATALOG! 100,000 products. Tremendous discounts! Taylor Distributors, Newton 14, New Jersey.

KNOW SOMEONE LONELY, ill, shut-in? Send \$1.00 for four, friendly, personal, monthly letters. Give age, birthday, hobbies of recipient. Box 514-RW, American Agriculturist, Ithaca, New York.

RALER TWINE — guaranteed \$6.50 per bale. Buy 20 bales—get one bale free. Philip K. Gardner, Mullica Hill, N. J. GR 8-6291.

OLD ELECTRIC and Windup Toy Trains. Edward Wiehmann, Lenox, Massachusetts.

NEW 18 CABIN CRUISER—head—sink—70 HP Mercury — full canvas, \$1895.00. Milton Sullivan, Seneca Falls, N. Y.

ATTIC AND BARN 'Junk' worth money. Will buy almost anything pre 1910. Send brief descriptive list. Judah Weberman, 1 Grandview Ave., Monsey, New York. Phone 914 EL 6-3356.

CHUNK WOOD BURNING Furnaces. Daniels Mfg. Company, Hardwick, Vermont.

ADDITIONAL CLASSIFIED ADS

(Continued on Page 48)

ISSUE DATES

April Issue	Closes March 2
May Issue	Closes April 6
June Issue	Closes May 4
July Issue	Closes June 1

CLASSIFIED ADVERTISING

**25¢ PER WORD
EACH ADV.**

Minimum Charge: \$2.50 Each Time

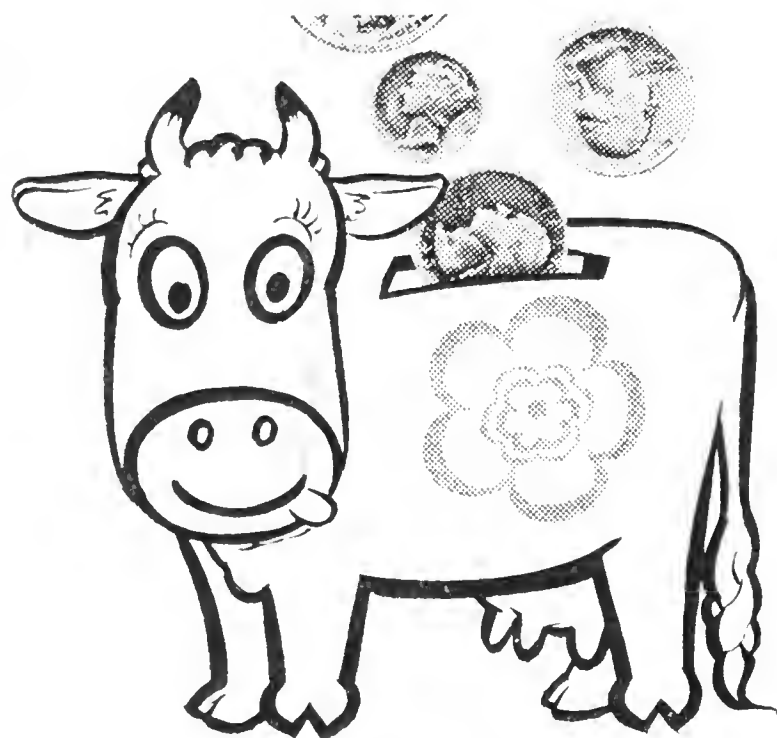
USE WORD RATE CHART

Words	One Time	Two Times	Three Times	Four Times
10.....	2.50	5.00	7.50	10.00
11.....	2.75	5.50	8.25	11.00
12.....	3.00	6.00	9.00	12.00
13.....	3.25	6.50	9.75	13.00
14.....	3.50	7.00	10.50	14.00
15.....	3.75	7.50	11.25	15.00
16.....	4.00	8.00	12.00	16.00
17.....	4.25	8.50	12.75	17.00
18.....	4.50	9.00	13.50	18.00
19.....	4.75	9.50	14.25	19.00
20.....	5.00	10.00	15.00	20.00
21.....	5.25	10.50	15.75	21.00
22.....	5.50	11.00	16.50	22.00
23.....	5.75	11.50	17.25	23.00
24.....	6.00	12.00	18.00	24.00
25.....	6.25	12.50	18.75	25.00
26.....	6.50	13.00	19.50	26.00
27.....	6.75	13.50	20.25	27.00
28.....	7.00	14.00	21.00	28.00
29.....	7.25	14.50	21.75	29.00
30.....	7.50	15.00	22.50	30.00
31.....	7.75	15.50	23.25	31.00
32.....	8.00	16.00	24.00	32.00
33.....	8.25	16.50	24.75	33.00
34.....	8.50	17.00	25.50	34.00
35.....	8.75	17.50	26.25	35.00
36.....	9.00	18.00	27.00	36.00
37.....	9.25	18.50	27.75	37.00
38.....	9.50	19.00	28.50	38.00
39.....	9.75	19.50	29.25	39.00
40.....	10.00	20.00	30.00	40.00
41.....	10.25	20.50	30.75	41.00
42.....	10.50	21.00	31.50	42.00
43.....	10.75	21.50	32.25	43.00
44.....	11.00	22.00	33.00	44.00
45.....	11.25	22.50	33.75	45.00
46.....	11.50	23.00	34.50	46.00
47.....	11.75	23.50	35.25	47.00
48.....	12.00	24.00	36.00	48.00
49.....	12.25	24.50	36.75	49.00
50.....	12.50	25.00	37.50	50.00

Count name and address as part of the ad. All city and state names counted as one word, zone number counted. Example: New York 22, New York counted as 3 words.

Count each initial or group of numerals as one word. Example: J. S. Jones counted as 3 words; R.O.P. counted as 3 words; RFD counted as 1 word; \$10,000. counted as 1 word. Blind box number \$2.50 extra, includes address. Count hyphenated words as separate words. Send check or money order to: American Agriculturist, P. O. Box 514, Ithaca, N. Y. Advance payment is required.

CLASSIFIED DISPLAY RATE



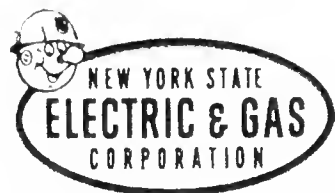
SHE'LL RAISE YOUR PAY with **EARLY CUT HAY!**

Study after study proves this fact:

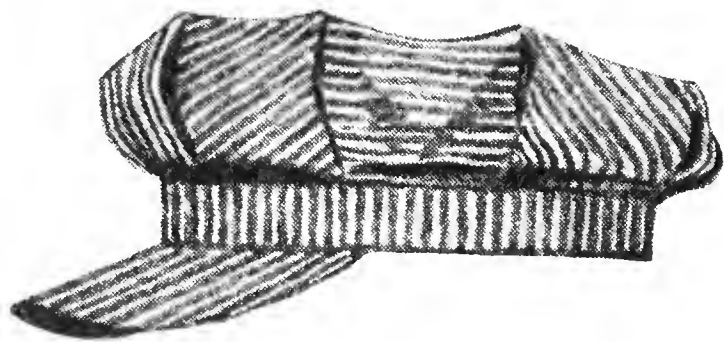
Early cut, high quality hay put in the barn with minimum leaf loss can increase milk profits per cow as high as \$40 to \$60 per year!

That's why an electric hay dryer is the most profitable investment any dairy farmer can make! With an electric hay dryer you can cut your hay at its peak in early June — with no weather worries. You can reduce grain costs per pound of milk produced — often pay for your hay dryer in feed savings and increased milk production the very first year!

Get the facts from our Farm Service Representative—learn how easily you can "raise your pay with early cut hay"...



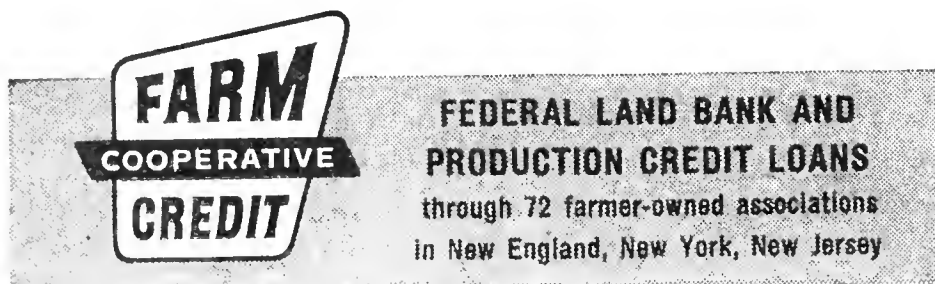
PLAN YOUR ELECTRIC HAY DRYING SYSTEM NOW!



YOU CAN'T FARM WITHOUT
BRAIN POWER, WHY TRY TO
FARM WITHOUT
MONEY POWER



More and more northeast farmers look to Cooperative Farm Credit for the money it takes to make money farming today. Long and short term loans. Prompt, friendly service from men who know farming. Put Co-Op Farm Credit's money power to work for you. See for yourself why Co-Op Farm Credit is "Up Front in Farm Financing!"



**FEDERAL LAND BANK AND
PRODUCTION CREDIT LOANS**
through 72 farmer-owned associations
in New England, New York, New Jersey

PRIZE FLOWERS

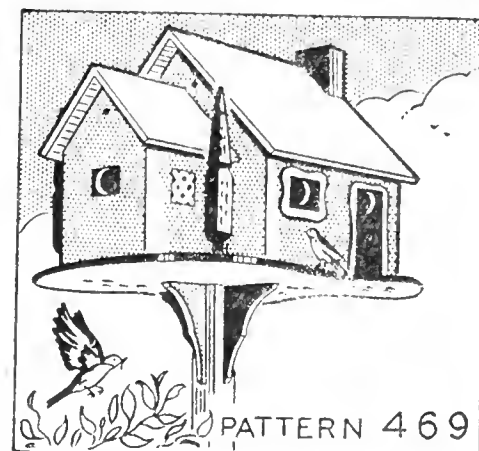
(Continued from Page 40)

settle the soil and go back next day, when it has drained off, to refill and grade. Leave a slight dish or depression to hold future water.

6. It is important to keep stems and new buds from drying out in the sun, wind, and a possible frost. To accomplish this, mound up peat moss or straw to a height of about six or seven inches around the plants. Remove this gradually over the next two weeks, or when the weather becomes mild and pleasant.

Roses, of course, need water, but continual "wet feet" will kill them. To have the foliage wet at night will only encourage black spot and fungus diseases. After the plants have started, you can put a bare handful of some good rose food around each plant three times, at two or three week intervals. Keep this off the stems and foliage. A loose mulch of any organic material will help to keep the roots cool and will give your bed a finished, neat look. To protect them from insects and disease, spray or dust your roses every week or ten days.

We want to try both of the prize-winning zinnias this year and with our soft pink terrace, we are going to put out tubs of Tropicana. Stop by when you are in our area; the latchstring is always out.



HOME WORKSHOP

A MODEL HOUSE for your bird neighbors has five rooms, a nice red chimney, and is well landscaped. Pattern 469, which gives actual-size guides and directions for this house, is 35 cents. It also is in the "Homes for Birds Packet" No. 75 which gives eight different bird house designs and sells for \$1.00.

Send orders to American Agriculturist, Pattern Dept., Bedford Hills, New York.

VISITING

(Continued from Page 41)

The U. S. Department of Agriculture has announced its "top ten" publications for 1962. Over two million of these bulletins were distributed last year. They are:

Family Fare, HG-1, a cookbook accenting food management.

Food for Fitness, Leaflet 424.

Removing Stains from Fabrics — Home Methods, HG-62.

Home Freezing of Fruits and Vegetables, HG-10.

Food and Your Weight, HG-74.

Money-Saving Main Dishes, HG-43.

Storing Perishable Foods, HG-78.

Insects and Diseases of Vegetables in Home Gardens, HG-46. 25 cents.

How to Prevent and Remove Mildew, HG-68.

Roses for the Home, HG-25. 15 cents.

All except two of the bulletins may be obtained free by sending a postcard to the Office of Information, U. S. Department of Agriculture, Washington 25, D. C. The other two may be purchased from the Superintendent of Documents, Government Printing Office, Washington 25, D. C. Bulletin HG-46 sells for 25 cents, and Bulletin HG-25, for 15 cents.

FISH AND SEAFOOD

(Continued from Page 42)

SHRIMP CURRY

- 1 pound fresh or frozen shrimp, cooked
- 3 tablespoons butter, melted
- 3 tablespoons flour
- ½ to 1 teaspoon curry powder (to taste)
- ½ teaspoon salt
- ⅛ teaspoon ginger
- Dash pepper
- ½ teaspoon sugar
- 1½ cups milk
- 1 small can sliced mushrooms, drained and sauteed
- 3 cups hot fluffy white rice

Stir into melted butter, the flour, curry powder, salt, ginger, pepper, and sugar. Gradually add the milk, and cook with stirring until sauce is thickened. Add shrimp and mushrooms and cook only enough to heat shrimp.

Place curried shrimp in center of serving platter and surround with hot fluffy rice. To serve, top rice with shrimp mixture. Offer small dishes of curry condiments, as grated coconut, roasted peanuts, preserved kumquats, chutney, and chopped, hard cooked eggs.

New 4-H Club Outfit



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Send THIRTY-FIVE CENTS (in coins) for this pattern to: AMERICAN AGRICULTURIST, Pattern Department, Box 42, Old Chelsea Station, New York 11, N. Y. Please write name, address and pattern size clearly.



Your 1963 Gardening Guide

By ARTHUR J. PRATT*

IN GARDENING, it isn't just a matter of being there "firstest with the mostest," but rather of being there at the right time with exactly what it takes. There is a best time for all garden practices, from starting plants indoors to fitting and fertilizing the garden, controlling weeds, making second plantings, watering thirsty plants, and harvesting peas and sweet corn. Not the least important is being there with the right variety—one of top quality which is resistant to disease and which will grow well under your conditions.

Fertilizers

No crop will do well unless it is adequately fertilized. Organic matter in the soil is very useful because in its breakdown it improves the physical condition of heavy soils and releases valuable plant nutrients. The fertilizer used, however, may be either "chemical" or "organic" and, if properly used, either one will give equally good results. The 100 percent organic fertilizer, however, will be much more expensive. It is good that most folks don't object to using "chemical" fertilizers, for there would be less than one-tenth enough "organics" to go around.

Gardens that have been well fertilized for several years should have a 1-1-1 ratio fertilizer. I prefer a 12-12-12 analysis, and use it at the rate of 4 pounds per 100 square feet of garden area. I spread mine over the entire area not more than a few days ahead of planting, and work it in with a rotary tiller. Those who plow the garden with a farm tractor usually find it best to broadcast the fertilizer just after plowing, but before harrowing the garden. Incidentally, I keep the organic matter high in my soil by composting all of the leaves that I can get and working this into the soil.

A commercial fertilizer with a 1-2-1 ratio is best for gardens in new locations where little or no fertilizer has been used recently, or where the garden is fertilized with manure as well as commercial fertilizer. The most common fertilizer analysis for this situation is a 5-10-5 used at the rate of 5 pounds to each 100 square feet of garden area if no manure is used, or half as much if manure is used. A more economical fertilizer, if available, is a 10-20-10 at 2½ pounds per 100 square feet.

Tasty Varieties

Commercial growers are very conscious of yields, but few home gardeners would know whether their short row of potatoes is yielding at the rate of 300 or 500 bushels per acre. The main thing that the home gardener knows is that if his new potatoes and peas are ready to eat by the fourth of July they are "a mighty sight better" than anything he has tasted since last summer. For this reason **high quality** will be my

number one choice, but don't forget that we sometimes don't all agree on what makes top quality.

A good example of where we might disagree on quality is in lettuce. I prefer a crisp variety of loose leaf lettuce, and **Ruby** is tops on my list. If you prefer the iceberg or crisp-head type, you will want to try either **Fulton** or **Oswego**. Perhaps

you prefer the butterhead type of lettuce, and if you do the new **Buttercrunch** is tops. If you prefer the non-heading type of "creamy" lettuce, then you will want **Summer Bibb**. All of these last four varieties were developed by Dr. G. J. Raleigh at Cornell, and all are available from Harris. They have been selected for quality and for their ability to stand for some time without shooting up to seed.

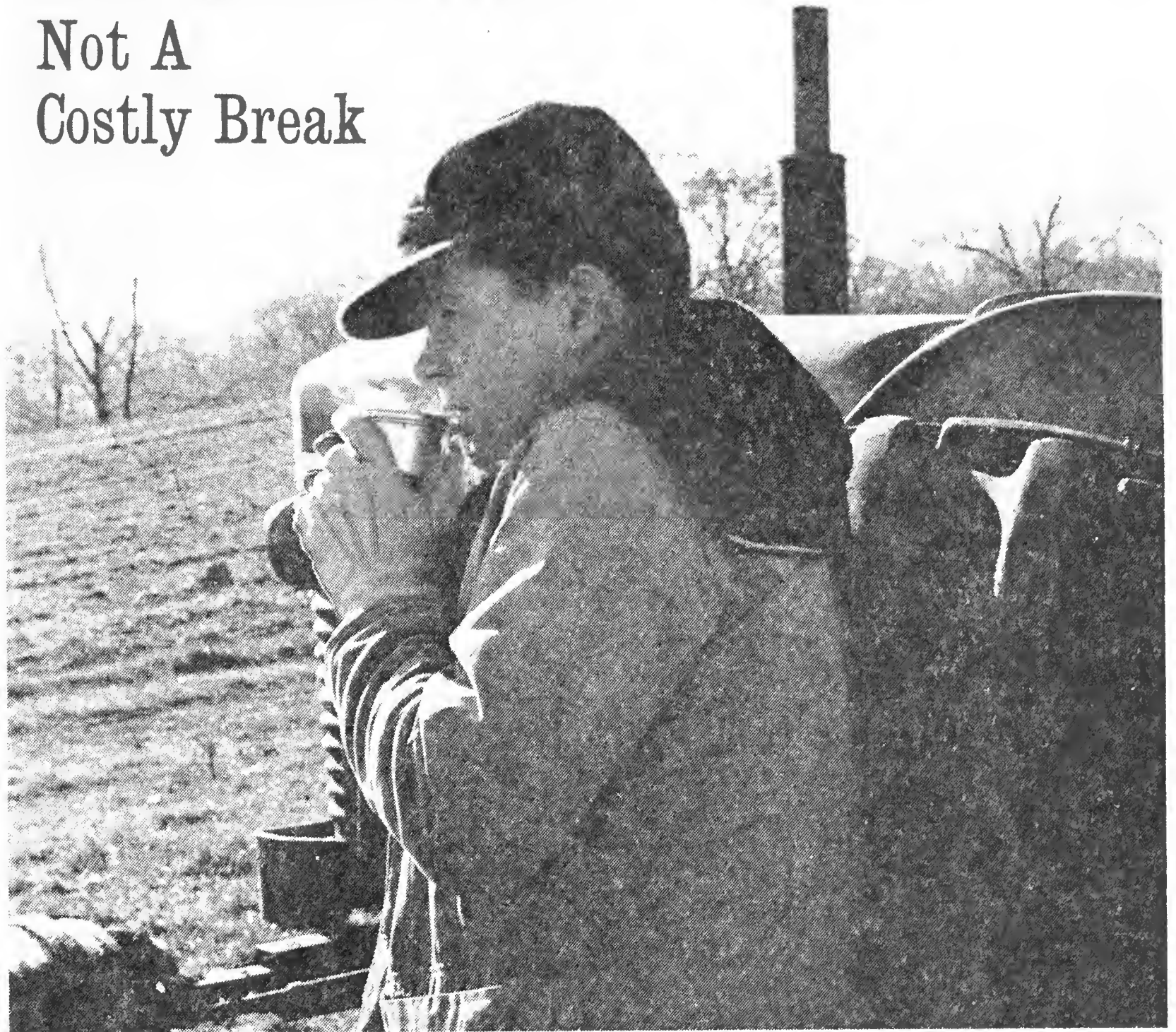
It isn't so new any more, but **Burpee Hybrid** muskmelon is difficult to beat for quality. It has enough hybrid vigor and disease resistance so that it often produces a crop when others fail. Perhaps nothing that the home gardener grows will pay better for season-long, weekly sprays of Captan than will muskmelons. Also, nothing will pay better

for a strip of black plastic mulch than will muskmelons. Another new high-quality hybrid muskmelon which bears early, yields well, and has fusarium wilt resistance is **Gold Star** (Harris). **Supermarket** hybrid muskmelon (Robson) is resistant to both downy mildew and fusarium wilt.

If you grow your own cabbage plants you will want to try some of the new hybrids. The seeds are expensive, but the cost of the seed is only a very small part of the cost of growing cabbage. For home garden use it is nice to have a cabbage that will mature and remain firm for considerable time without bursting. **Emerald Cross** (Harris, Burpee) meets that requirement and has excellent quality. **C-C Cross** is even

(Continued on Page 48)

Have A Coffee Break... Not A Costly Break



New GLF Power Champ Diesel Fuel

gives you complete starting—and stopping—command over diesel-powered vehicles. Faster starts when you're ready to **go**. Fewer stops for maintenance when you need to **go**.

Proof is in the product. Two new additives—MPA-D and CI-2—give GLF Power Champ benefit ingredients to reduce maintenance costs, rust, smoke and soot, while it **improves** ignition starts, winter flowability, engine efficiency, and fuel injector life. Sounds like a lot of work for any fuel, doesn't it? And it is. But MPA-D and CI-2 have demonstrated these advantages in a series of field tests.

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See for yourself why new GLF Power Champ Diesel Fuel keeps vehicles rolling. Order from your GLF Petroleum Service. And then your breaks will be for coffee. Not for repairs. Cooperative GLF Exchange, Inc., Ithaca, N. Y.



GLF PETROLEUM SERVICE

* Art Pratt was for many years on the staff of the Vegetable Crops Department at Cornell University. Now retired, he's still an avid gardener.

Your 1963 Gardening Guide

(Continued from Page 47)

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earlier, but does not stand long after maturity. Neither of these are yellows-resistant. No new variety in my opinion is so mild as **Early Jersey Wakefield**. Those who prefer the Savoy type of cabbage will want to try **Vanguard II** (Harris). It is sweet, tender and mild, with bright green, moderately curled or savoyed leaves.

The new **Executive** snap bean (Robson, Harris, Burpee) and the slightly older **Tendercrop** are tops for quality. They are of the Tendergreen type, but smoother and of much better quality.

Peas have had the first major improvement in many years — resistance to two viruses which yellow and stunt the plants has been bred into several of the best quality varieties by the Geneva (New York) Experiment Station. All of these new varieties carry the number "60" after the name, as **Perfect Freezer 60** (Harris).

Norland, a smooth, early red-skinned potato, is perhaps the most interesting of the new potato varieties that have readily available seed. But don't plant enough Norlands to last all winter because after a period in storage they turn dark after cooking. Many plant breeders are working on potato breeding, and many excellent varieties are likely to become available in the near future. For the late or main crop potatoes, either the **Pontiac** (red) or the **Sebago** (white) varieties will yield better and not darken after cooking.

Cucumbers are plagued by a number of diseases for which there are resistant varieties. **Polaris** (Corneli), a long, dark-green variety, has beautiful long fruits for slicing, and is resistant to anthracnose. **Tablegreen** is a beautiful slicer that is resistant to mosaic. Regular applications of Captan will control anthracnose.

Sweet corn is one of the most commonly-grown crops in large gardens, and the varieties are legion. A dozen or more new ones appear every year. It was thirty years ago that **Golden Cross Bantam** became generally available. It was such a big improvement over the old varieties that for a time it was more popular than all other sweet corn varieties combined, and it is still grown by many.

Since many seed companies have their own hybrid sweet corn varieties, the best way to choose among them is to get catalogs from two or three of them and do some comparative shopping by studying the descriptions of each variety. If you want new or unusual varieties, don't wait until planting time to order your seeds—and don't expect to pick them up at supermarkets or novelty stores.

Tomatoes are grown by more home gardeners than is any other single crop. Dr. Henry Munger's **Gardener** (Harris, Robson) is an early tomato worthy of a trial in the home garden. It is almost as early as **Fireball**, and less susceptible to diseases.

Some of the hybrids have such excellent quality that they deserve a trial. **Cardinal** hybrid (Harris) is not only big and "meaty", but is also resistant to cracking. Burpee's **Big Early** hybrid has exceptionally large fruits and fine quality for salads when vine-ripened. Burpee's **Big Boy** is fine flavored, solid fleshed, and big—but rather late for some areas, as is also **Wonder Boy** (Comstock).

Early Giant (Grand Rapids) is excellent where earliness is important; **Jim Dandy** (Ferry-Morse) is a giant for those who want to do a little boasting and also have a good quality tomato.

Much interest is being shown in "bite size" tomatoes, particularly the large cherry types. The earliest tomato that I have ever grown is **Early Salad** hybrid (Burgess). It is of the large cherry type, and is a heavy yielder, with a small bushy plant. But if it wasn't ready to eat before any other variety it would have little place in the home garden because it lacks flavor. **Tiny Tim** (Burgess) is a real dwarf with small fruit that can be grown in a pot or window box as well as in the garden. **Basket Pak** (Burgess) and **Red Sugar** and **Yellow Sugar** (Burgess) are cherry type tomatoes of good quality, but they have large-growing plants and mature late.

Here are the addresses of the seed companies given above in parenthesis after the name of the new variety that they either developed or are one of the first to market:

Burgess: Burgess Seed and Plant Co., Galesburg, Mich.
Burpee: W. Atlee Burpee Co., Box 6929, Philadelphia 32, Pa.
Comstock: Comstock, Ferre & Co., Wethersfield, Conn.
Corneli: Corneli Seed Co., 101 Chouteau Avenue, St. Louis, Mo.
Ferry-Morse: Ferry-Morse Seed Co., Box 200, Fulton, Ky.
Grand Rapids: Grand Rapids Growers, Inc., Ionia Avenue, S. W., Grand Rapids, Mich.
Harris: Joseph Harris Co., Moreton Farm, Rochester 11, N. Y.
Robson: Robson Quality Seeds, Inc., Hall, N. Y.

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H. W. NAYLOR CO., MORRIS 4, N. Y.

ADDITIONAL CLASSIFIED ADS

(Continued from Page 45)

PROFITABLE OCCUPATIONS

INVESTIGATE auto accidents — pays up to \$750-\$1,000 a month. Investigators needed everywhere, part or full time. Car furnished—expenses paid. No selling. Meet interesting people. We train you spare time at home in weeks. Hold present job until ready to switch, or start own investigating business. Free information. No obligation. Liberty School, Dept. C-1671, 1139 West Park, Libertyville, Illinois.

BUSINESS OPPORTUNITIES

EARN MONEY SEWING our products. Exciting details free. Elizabeth Thompson, 21 High Brookline 46, Massachusetts.

NEED CASH? Earn it raising fishworms. Write: Oakhaven-6, Cedar Hill, Texas.

SOFT SERVE BUSINESS for sale, city of 9,000. Fully equipped. Long term lease. Grossing nearly \$30,000 yearly. Full price \$12,000. Norwich Tastee Freez, Norwich, New York.

FOR SALE—GENERAL STORE established 40 years. \$35,000 gross, no credit, no other stores in vicinity, 1 acre land garage and storage, 6 rooms and bath. All utilities, on main highway, licensed to sell patent medicines, beer, gas and general merchandise. Box 514-GR, American Agriculturist, Ithaca, New York.

CATSKILL MTS. boarding house, Farm, 25 acres, 30 guest. Going business. Goldschmidt, Cairo, N. Y.

AUTOMOTIVE

RAMBLERS — NEW AND USED—cash or terms. Philip F. Gardiner, Automobiles & Machinery, Mullica Hill, N. J. GR 8-6291.

AMAZING CAR OFFER: limited supply of 1962 Ford Galaxies. \$895; 1962 Dodge Senecas. \$795. 1961 models sold out fast due to tremendous response so act quickly. Mechanically A-1, automatics, 6-cylinders, 4-doors. Deliveries arranged anywhere, bonded driver; \$50 plus gas and oil. Write, phone Emkay Motor Sales, 1046 Bedford Ave., Brooklyn, N. Y., (212) ULster 7-0651. New York's largest cab fleet wholesalers. Ask about special free trip to New York.

WANTED: AN OLD CAR 1934 or older. Prefer Plymouth, Chevrolet, Dodge, or Chrysler but mention others. Would like coupe or roadster. Donald Osterhout, Cobleskill, N. Y.

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MAPLE SYRUP

FANCY MAPLE SYRUP, butter, candies. Reasonable prices. Elliott Homestead, New Kingston, N. Y.

PURE MAPLE Products from New York State the No. 1 maple syrup producing state. Place orders now for best quality products. 1 Gal. \$5.50; ½ gal. \$3.00; also smaller containers. 1 lb. Maple Cream \$1.10. Maple candies \$1.50 per 1 lb. box. 1 lb. cello bags \$1.25. All prices plus postage your zone. Member—Maple Producers Association. Bertis Jump, Bainbridge, New York.

PLANTS

CERTIFIED TOMATO, pepper, cabbage, onion, eggplant, broccoli lettuce, cauliflower, beet, collard, a d sweet potato plants. Field grown, healthy, vigorous plants. Write for free catalogue-price list. Satisfaction guaranteed. Evans Plant Co., Dept. 5, Ty Ty, Georgia.

FREE COLOR VEGETABLE catalog featuring fabulous heavy producing Hybrid tomatoes. Hybrid onions Hybrid eggplant. Also popular varieties cabbage, sweet pepper, hot pepper, lettuce, broccoli, cauliflower. Earliest varieties, widest selection of vegetable plants for home and commercial gardeners. Our outdoor grown plants are much harder than hothouse plants, and are rushed to you by fast mail or express days fresher than those bought in stores. Fully guaranteed. Write today Piedmont Plant Co., Dept. 201L, Albany, Ga.

STRAWBERRY, RASPBERRIES, Blueberries, Blackberries. Latest and best including Midway, Frontenac, Fulton Ozark Beauty Everbearing strawberries, Latham, Earlired, Durham and September Everbearing raspberries. Write for free catalog describing 70 small fruit varieties. Walte K Morris & Son, Bradford, Mass.

STRAWBERRY, RED raspberry, blackberry plants. Guaranteed to grow. Eureka Plant Farm Hastings, N. Y.

LIKE SWEET ONIONS? 500 assorted sweet onion plants \$2.50 postpaid fresh from Texas Onion Plant Company. "Home of the Sweet Onion." Farmersville, Texas.

GROW STRAWBERRIES You can profitably grow really big tasty strawberries for home use or market. We offer all the leading varieties. Our plants are grown using the most modern methods gained from years of experience. They are guaranteed certified disease-free. Will produce big crops. Free colored catalog. List a general line of nursery stock, including strawberry plants, fruit trees, grape vines, ornamentals, etc. Buntings' Nurseries, Inc., Box 19 Selbyville, Delaware.

STRAWBERRY PLANTS, New England leading varieties, raspberry and blueberry bushes, asparagus, rhubarb and horseradish roots. Send for list. Fred Drew (Nursery) Agawam, Mass.

THOMPSON'S VIGOROUS Strawberry Plants Vermont grown from virus free stock. Catskill, Sparkle, and Howard 17 (Premier) 50-2.00, 100-3.50, 300-8.50, 500-12.00, 1,000-22.00. postpaid. Trimmed ready to set from healthy long rooted State Inspected plants. Glenr Thompson, Johnson, Vermont.

FREE COLOR VEGETABLE plant catalog featuring Hybrid tomatoes, onions, eggplant. Also popular varieties cabbage, sweet pepper, hot pepper, lettuce, broccoli, cauliflower. Earliest and best for home or commercial gardeners. Fully guaranteed. Write today. Piedmont Plant Co., Dept. 201L Albany, Ga.

SITUATION WANTED

FAMILY MAN, 30, seeks challenge. Bachelor Science. Master Science Marketing, Farm Management. Interest: Agricultural Business. Experience: Dairy farmer, Extension, Farm Credit. Excellent references. Box 514-JO, American Agriculturist, Ithaca, New York.

SINGLE MAN OF 40, Agricultural graduate, wishes responsible position on farm. Experienced in dairying, machine operation and farm management. Write Box 514-SR, American Agriculturist, Ithaca, New York.

WANTED

OLD WINCHESTER RIFLES—any old guns. Kindly send pencil outline, serial number, condition, your telephone and fair price for payment at once Sidney Stein, 10 Meacham Ave., Elmont, L. I., N. Y.

FREAKS ALBINOS, midgets, oddities, anytime. Fays—Madrid, N. Y.

CEDAR POSTS

CEDAR POSTS—all sizes. Pressure treated & cedar poles for barns & sheds. Rustic fencing. M. D. Snell & Son, Marcellus, N. Y. OR 9-3121. Close Sunday.

Livestock Notes

ANIMAL SHRINKAGE

ABULLETIN recently issued by the Ohio Agricultural Experiment Station has some interesting data on factors that influence shrinkage of livestock from farm to market.

Cattle — In brief, it was found that there was much variation between different lots of livestock hauled the same distance, or having the same time interval between weighing at the farm and at the market. It was found also that **time** in transit seemed to be more important than the distance—these two factors accounted for about one-third of transit shrinkage.

Interestingly enough, cattle taken off feed and water the night before shipment shrank significantly less than those left on feed and water. On the other hand, temperature was found to be not as important a factor as has been thought in the past. Tranquilized cattle shrank nearly the same as non-tranquilized in the cases observed.

Hogs — Very little difference was found in the shrinkage between barrows and gilts, but hogs weighing 200 pounds shrank .32 pound more per hundredweight than did heavier hogs weighing more than 220 pounds.

"CUTABILITY" GRADING

FOR 35 YEARS meat has been graded for tenderness, juiciness and flavor — "Prime," "Choice," "Good," etc.

But progress never stands still, and the Department of Agriculture is using, in addition to the previous system, one dealing particularly with "cutability," making for dual grading. This dual system was put into effect (on a trial and optional basis) on July 1 of last year.

The former grading system gives no direct consideration to the amount of excess fat that retailers trim off retail cuts to make them more acceptable to the consumer. With the present consumer trend toward less fatty beef, obviously there is a big loss in "cutability" unless beef animals are bred with this in mind.

USDA studies have demonstrated that size, shape and weight of beef cuts can now be measured in living cattle with 98 to 99 percent accuracy. This new process is called photogrammetry, and consists of photographing the live animal with a twin camera device. The negatives are placed in a plotting machine, which reads the image in three dimensions, like a stereoscope. The distances between points on the animal (which were marked on the body before photographing) are used to predict carcass characteristics.

At the end of the trial period for dual grading, the Department of Agriculture hopes that members of industry and other interested persons will submit to them written data, views, or arguments concerning the standards. It is their feeling that the year of operation will give ample time for evaluation.

The deadline for such comments is July 1, 1963, and they should be directed to the Director, Livestock Division, Agricultural Marketing Service, U. S. Department of Agriculture, Washington 25, D. C.

Temperament seemed to have little or no effect in hogs.

Recommendations — From the study come the following recommendations:

1. When comparing alternate markets, consider whether the price received from a distant market will be enough higher than the local market price to offset the extra costs of transportation, transit shrinkage, and pencil shrinkage. Pencil shrink is the practice of some buyers who require a 3 per-
2. Reduce hauling time. Move the livestock carefully, and don't let them stand on the truck for long periods.
3. Gate and load animals evenly to take the pressure off end animals during the truck starts and stops; don't overcrowd.
4. Don't excite livestock. After loading, let animals settle for a few minutes. Be gentle; move slowly and quietly when working around them.
5. Drive the truck carefully without fast starts and stops.
6. Deliver the animals to market early to avoid waiting in line to unload.

cent deduction of cattle weights upon arrival at the market.

BULLS VERSUS STEERS

IN A THREE-YEAR test at Purdue University bulls were compared with steers in the feedlot. The calves were put into the lot right after weaning, and were fed out while still young.

Results showed bulls gaining .25 pound faster daily, and the feed cost was 64 cents per hundredweight cheaper. The bulls had three-tenths inch less fat cover on the outside of the carcass, and one and two-thirds inch larger rib eye.

In the total round, rib, loin and chuck, steers and bulls had about the same percentage; however, steers had heavier loins and ribs and bulls had heavier chucks. Rounds were the same.

They're worth more if they're Black!



Angus offer a sound and sure future to cattlemen

Sure he's showing off a little! He's happy and healthy, and full of life. He's an Angus calf.

Today you'll find more and more thoughtful cattlemen are switching to Angus, for they recognize Angus offer them a *sound and sure future*.

Less wasteful bone, belly, brisket

Why are Angus ahead? You see, there's no better beef type than Angus. There are lots of ways of describing it, but it all adds up to *higher dressing percentage and more salable beef*, especially in the higher-priced cuts. For Angus have less wasteful bone, belly and brisket.

Why fool around with the big, wastey "new-fangled" types or big-bellied, big-boned "out-dated" breeds?

The packer is still the paymaster. He'll pay more money for smoothly finished Angus, for Angus are *full of red meat and dress out a premium carcass*.

What does this mean to you? More money — that's all. Frequently \$2.00 or more per cwt. with Angus.

You're not turning grain and grass into wasteful bone, belly and brisket, but into beef — quality beef — beef that brings top-of-the-market prices.

Horns are coming off

Angus is the only naturally hornless beef breed. When you cross an Angus bull with horned cows, at least 95% of the calves will be dehorned. On successive crosses you eliminate your needless horn problem entirely.

Some cattlemen say "Horns are beautiful." Maybe so. But practical? Not today. *No longer do horns perform a functional purpose*. Since progress will not be impaired by sentiment, horns are coming off.

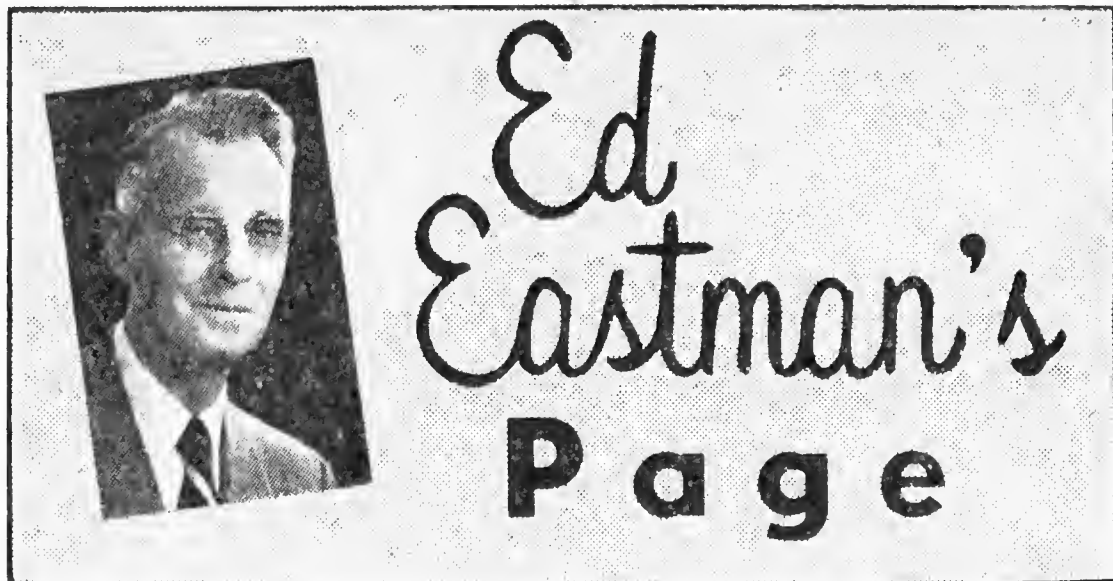
Why don't you join the *parade of progress*? Why don't you switch to Angus?

You don't just buy Angus. *You invest in their earning power*. And the earning power of Angus will increase — for naturally hornless Angus will be even more and more in demand in years to come.

Remember — they're worth more if they're Black!

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American Angus Association, 3201 Frederick Blvd., St. Joseph, Mo.



Sap's A-Runnin'

FATHER, Mother, and we boys were all gathered around the breakfast table in the big farm kitchen, mowing away a big stack of pancakes with maple syrup, sausage, warmed-up potatoes, milk and coffee. Incidentally, after an hour or two of hard work and chores, there wasn't any of this modern fooling around about skipping breakfast. We were always ready for it—and how! Breakfast is the most important meal of the day.

Father wasn't having anything to say, so we knew he had something on his mind. And we soon found out what it was.

"Hurry up, boys," he said, "sap's a-runnin'. We'll tap the grove today."

So we hurried through the rest of our breakfast, loaded the buckets on the sleigh, and drove to the maple grove.

It was hard work, especially boring the holes in the trees with a brace and bit. How sore a fellow's belly got after boring holes all day with the brace held tightly against him! Then we drove in the spiles, hung the buckets under them and watched the new sap spurt.

Of all the jobs of the year, both at home and later when Belle and I were farming, I liked making maple syrup and sugar the best. It was the first outdoor job of the year—the first real sign of spring. The sap ran best when it had frozen the night before and the sun came up bright and warm the next morning.

Our methods then were as crude, compared to those of today, as were the Indians' methods compared to ours. The Indians cut a gash in the tree and caught what sap they could, boiling it down by throwing hot stones in it, or later putting it in iron kettles over an open fire.

Many of you older people have made syrup, as I have, by boiling it in a big open kettle. Of course the Indians killed off the maples by gashing the trees—but what did it matter when the forests were full of them?

When I was young, we still used some long wooden spiles from which the pith had been burned out so that the sap could flow through. We used both tin and wooden uncovered buckets. The sap was hauled from the trees in a big covered tub on a long-sleigh. In the rickety old saphouse we boiled it down in big open pans over a furnace or arch that ate up wood like a hog drinks swill.

When we had boiled the syrup as far as we could in the pans, we took it to the house and finished refining it on the kitchen stove. I have sold hundreds of gallons of syrup for \$1 per gallon. Now it retails for \$6.

What fun it was when there was a big run of sap to sit with the neighborhood boys and keep the furnace going all night, especially when one of us had been able to steal some eggs! The trouble was, we usually lost half of them because we couldn't get them out of the big pan before they boiled to pieces. And what lies we used to tell in that hot and steamy old saphouse while we kept the big fire going!

Now — like everything else — maple syrup and sugar-making are changed. Up and down the valley in northern Tioga County, New York, where I lived, there was a nice maple grove on nearly every farm. Now they are all gone, and in the sections where maple syrup is still produced, the aging trees are not being replaced. That is unfortunate for everybody, for can you imagine our Northeast country without the maples?

Today, the trees are tapped with a powered bit, and where the latest methods are used, instead of spiles plastic tubes are inserted tightly in the holes and the pressure of the rising sap forces it through these tubes to a central distributing system which carries it to the saphouse and the modern evaporator. Here controlled devices enable the operator to boil the sap to a syrup of just the right consistency. Thus, no rain nor dirt ever gets into it, and the finished product is a bright, golden color—the purest and most delicious sweet straight from Mother Nature herself.

But I must add that while modern methods produce a purer product and take much of the hard labor out of the making of maple syrup and sugar, I don't think there is the fun in the business that there used to be when Father said:

"Hurry up, boys. Sap's a-runnin'."

The Evils of "BUY NOW, PAY LATER"

DID YOU EVER set a row of dominoes on end, close enough so that when you tipped the first one all of the others went down in succession?

That is what has happened, time and again, to start panics. Some

good bank or financial enterprise fails, and down go hundreds of others.

That's what could happen because all America has gone on a financial spree, buying on credit and running into debt.

The worst offender of all is the **Federal Government**, with an unbalanced budget and little hope of ever paying the National Debt.

How very far we have departed from the principle of our forefathers to buy nothing except real estate or permanent property **without paying for it in cash.**

It's bad enough for adults to run in debt, but when merchants encourage children to buy on time without even the consent of parents, it comes close, in my opinion, to being a criminal action.

TRY IT

WHEN THE KIDS from 5 to 95 come home from school or work—or at any other time when they are hungry—give them a glass of malted milk.

To make it is simplicity itself. Have on hand a package of malted milk—any flavor. It is very low in price. Put from 2 to 4 teaspoons in a little milk. Add sugar or syrup, vanilla if desired, and mix vigorously with a beater. Add enough milk to make a full glass. It's nutritious—it's delicious! Try it!

If you have trouble getting your child to eat an egg, beat one up in some malted milk and he will love it.

THE MOST VALUABLE SPOT

OFTEN A full-time commercial farmer will tell me: "I haven't time to fool around with a garden. I can buy our vegetables cheaper than I can grow them."

If the farmer means growing vegetables on the same weed and insect-infested spot year after year, and taking care of them with a hand hoe, I'll agree that he might better buy them.

The modern way to have a garden, when conditions permit, is to rotate it frequently to avoid pests, to cultivate it with a tractor, and use weed killers and pesticides.

There should be no fences around

a farm garden to prevent the efficient use of a tractor, and the rows should be 3 feet apart so it can be cultivated with modern machinery and taken care of in a few minutes time when the tractor is going to or coming from a larger field of operation.

As for buying the vegetables at the store, anyone with experience knows that they can't be compared with fresh vegetables right out of the garden. Many city consumers, for example, just don't know what really good sweet corn is, freshly picked and plunged immediately into boiling water.

The land devoted to a garden can be the most valuable spot on any farm, large or small. Believe me, I personally realize this since farm work got too heavy for me, forcing me to move to town.

EASTMAN'S CHESTNUT

AFTER FORTY years experience as an editor, nothing in the way of a printer's mistake ever surprises me.

- There was for example that item about Mrs. John Smith who was backing her car out of her parking place last Monday and crashed into a passing bus. Mrs. Smith escaped with only a few "guts."

- A stork shower will be given at the home of Mrs. Wilbur Beebe just under the ditch along the highway for Mrs. Frank Harris. About 18 women are expecting.

- Miss Bertha McPherson, our esteemed fellow citizen, has just returned from a vacation in the Midwest. She said she is glad to be back in Gob's country again.

- Ed Jones returned last night from a business convention in Chicago where he has been for the past week as a delegate-at-lager.

- Many citizens have asked that a new heating system be installed in City Hall as there is a constant graft in there.

- Mrs. Albert Fisher was considerably bruised last Saturday when her sedan struck a hydrant. She told police that a fiend sitting beside her called her attention to a dress in the window and she stepped on the gab instead of the brake.



Photo: USDA

Tapping a maple with a modern powered bit. When I was young, we did it by hand with a brace and bit or an auger; the Indians did it by chopping a gash in the tree and catching what sap they could from the gash.

Note the plastic tube through which the sap runs to a main system of pipes and from there to the evaporator—eliminating almost all the hard hand work.

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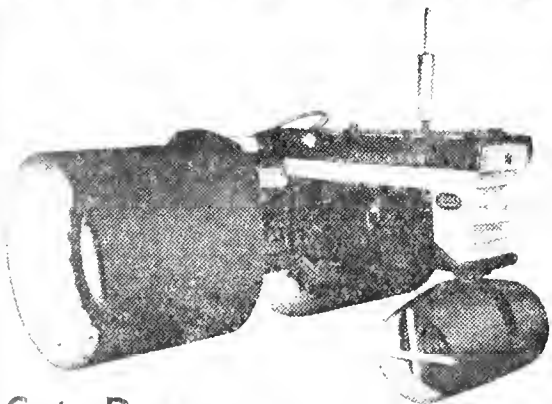
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Montrose, Pa. Laceyville 869-3424

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BONUS USE: Add to crankcase to quiet noisy valve lifters... remove gum, sludge deposits!

THEN ADD...

MOTOR-MEDIC
EXTRA LUBRICATION
SMOOTHER PERFORMANCE

Both at leading dealers everywhere!

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TOMATO**

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WAYAHEAD**

BIG RED FRUITS
ripen early as July 4th
Regular price 15c per pkt., but to introduce Jung's Quality Seeds, will send a trial pkt. of our Wayahead Tomato, also—
GIANT HYBRID ZINNIA
which bloom from early summer 'til frost and will rival Chrysanthemums in size and beauty.

BOTH PKTS. FOR 10c
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COUPON IN
EACH CATALOG**

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Service Bureau

(Write to Box 367, Ithaca, N. Y.)

SERVICE BUREAU CLAIMS RECENTLY SETTLED

NEW YORK	
Mrs. Mary Rohm, Gorton	\$ 3.98
(refund on brushes)	
Mr. Leonard Wesche, Angelica	437.40
(payment for hay)	
Mrs. Rebecca King, Wellsville	2.78
(refund—unfilled order)	
Mr. H. W. Collins, Ovid	1.00
(payment on acct.)	
Mrs. Oris R. House, Hamilton	2.50
(payment on acct.)	
Mrs. Morris De Clark, Newark	3.89
(refund—returned merchandise)	
Mrs. Emily Halladay, Watertown	26.00
(refund of premiums)	
Mr. Henry R. Blue, Cold Brook	10.00
(damage settlement)	
Mr. Sidney A. Cram, Plattsburgh	4.53
(refund on order)	
Mrs. Beatrice Otis, Jay	4.58
(refund on order)	
Mr. Edward H. Doolittle, Moravia	48.28
(refund—returned merchandise)	
Mr. Walter S. Rich, Hobart	4.95
(refund on thermometer)	
Mr. R. House, Athens	1.00
(refund on order)	
Miss Sophie Barszeski, Sauganack	36.75
(refund on unfilled order)	
NEW JERSEY	
Mr. B. Austin Bennett, Vineland	1.06
(refund on returned merchandise)	
MAINE	
Mr. Manley S. Howard, Bucksport	16.96
(refund on merchandise)	
VERMONT	
Mrs. Jennie B. King, Essex Junction	1.15
(refund on order)	

HAY BUYING

THE FOLLOWING alert has been sent to all weights and measures officials in New York State by John F. Madden, Director of the Bureau of Weights and Measures, New York State Department of Agriculture and Markets:

"It has been brought to this Bureau's attention that deliveries of field baled hay made to farmers have been found short in weight.

"In Tioga County, the Department of Weights and Measures and the Sheriff's Department have received several complaints relative to short weight in deliveries of hay. In one case reported to this Bureau, the shortage amounted to over three tons and it is my understanding that a reimbursement of \$200 was made to a Berkshire, New York, farmer by the dealer.

"My investigation shows that this hay came from Canada and the drivers of the trucks peddle this hay from farm to farm.

"All weights and measures officials are requested to keep an alert eye out for loads of hay and when they see one, to check it for the specified weight. All farmers are urged also to notify their county Department of Weights and Measures if they should be approached by peddlers offering for sale field baled hay."

CAN YOU HELP?

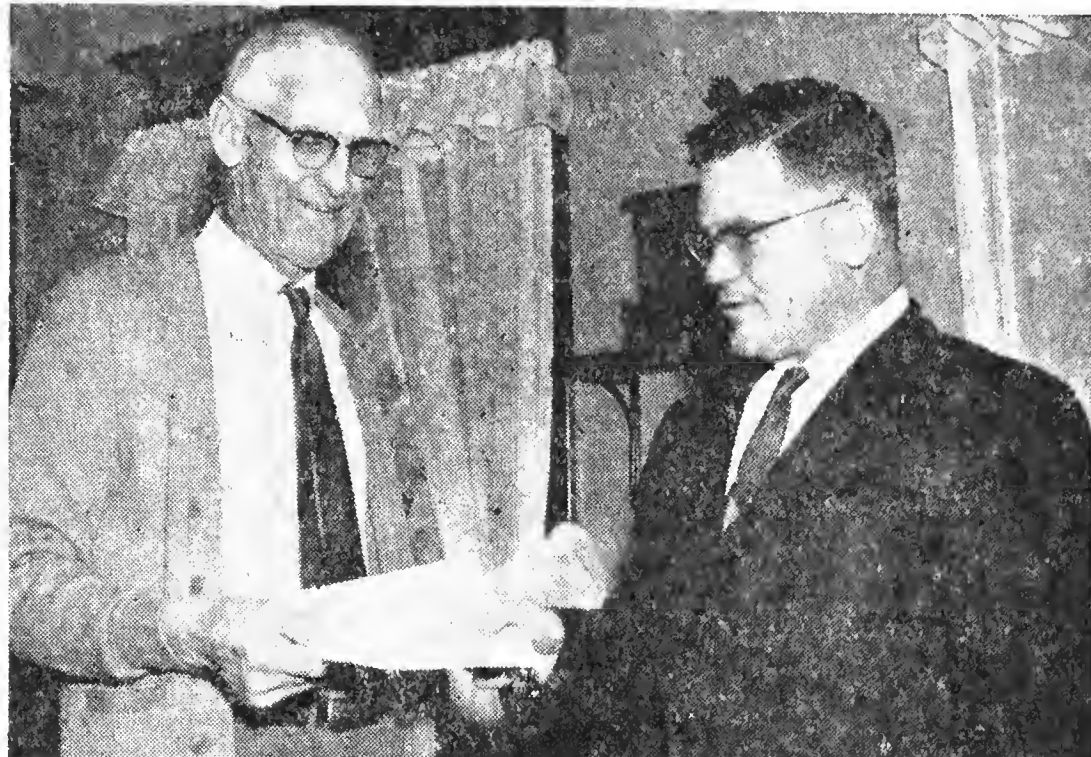
Do you have a pattern or instructions for knitting "fringe" mittens, which were worn by the old timers years ago? If so, Mrs. Herbert Will, Box 413, Roseoe, N. Y., would be happy to hear from you.

Mrs. Grace Bartlett, R.F.D. 2, Hamilton, N. Y. would like to borrow a "Townsend Family Bible," which may be in the possession of descendants of Ben Townsend, who died about 1948.

She would also like to know the date, place and cause of death of Grace B. Townsend Burnap, daughter of William Townsend and Laura White.

Mrs. Marcus H. Ashley, Jr., Keene Rd., R.F.D. 1, E. Freetown, Mass., is trying to locate directions for a crocheted clown, which was in Woman's Day magazine in 1913.

Kicked and knocked down by a cow, Mr. Bushart of Marion, N. Y. suffered fractured ribs, chest and head injuries. After 23 days in the hospital and many weeks at home, unable to work, he ran up heavy expenses. Because Mr. Bushart added two more policies to the single policy he carried for years, his benefits totaled \$1541.13. This payment was more than his medical bills for the North American policies paid weekly disability income and medical expense benefits.



Receiving checks for \$1541.43 from local agent Claire Reynolds, right, of Palmyra, N. Y., Mr. Bushart gave this letter of thanks.

I'm glad I made the decision to buy the two new NORTH AMERICAN policies Mr. Reynolds offered me when he stopped in last January. I carried the policies only nine months when I had to use them. You can bet I'll keep them renewed. I would gladly recommend the protection to anyone.

Elmer Bushart

Some Other Benefits Paid

Thomas Naugles, Riverhead, N. Y.	718.99	LaVerne Lartz, Lyndonville, N. Y.	849.86
Auto. Acc. fractured ribs, shoulder, concussion		Slipped & fell hitting trailer tongue—internal back	
Rose E. Korofeski, Mattituck, N. Y.	379.91	Alice C. Bambray, Pulaski, New York	1291.07
Knocked down by heater—fractured left arm & wrist		Tripped & fell—fractured hip & knee	
N. Woodrow Angell, Orient, N. Y.	170.00	Raymond D. Searles, Unadilla, N. Y.	657.13
Fell & twisted knee—internal cartilage		Fell thru hayloft floor—broke knee cap	
William Wahl, Andover, N. Y.	320.05	Lorus Drshaw, St. Regis, Falls, N. Y.	202.86
Piece of steel flew in eye		Pig ran into insured injured ankle	
Gerald L. Schumacher, West Valley, N. Y.	209.71	George Bayne, DePeyster, N. Y.	380.28
Fractured thumb playing basketball		Stepped on rusty nail—puncture wound & infection	
Isabella R. Clark, Moravia, N. Y.	607.30	Harry Rubin, Cobleskill, N. Y.	231.29
Fell in ice—internal back		Slipped in barn—internal foot	
Clyde N. Swezey, Sherman, N. Y.	773.13	Joseph Hauryski, Sr., Camhelli, N. Y.	1003.90
Kicked by cow—badly fractured ankle		Auto accident—multiple injuries	
Harold Platt, Elmira, N. Y.	1530.00	Bowne Mulks, Brooktondale, N. Y.	235.00
Slipped & fell loading cattle back & internal injuries		Loading scaffold & material fell—internal elbow	
Joseph LaVarnway, Morrisonville, N. Y.	529.11	Frank Lightino, Highland, N. Y.	170.00
Lifting & chopping wood—internal neck & back		Trailer tongue landed on foot—internal toe	
Charles D. Murray, Sr., Truiston, N. Y.	981.35	Fannie Buckle, Penn Yan, N. Y.	200.00
Catching & loading heifers—internal heels		Fell—internal back	
Dennis Randall Brookway, Hobart, N. Y.	886.81	Harold Baker, Johnsonville, N. Y.	589.61
Auto Accident—cerebral concussion		Slipped on hay wagon—internal back	
William W. Makarnski, Johnstown, N. Y.	131.11	Lester C. Nortier, Walworth, N. Y.	1350.00
Auto Accident—cuts & bruises		Fell getting off truck—fractured leg	
Milo Brown, Hion, N. Y.	371.35	William I. Brown, Nichols, N. Y.	1062.82
Auto accident—broken collarbone, cut elbow, concussion		Cow kicked brown into stomach—internal injuries	
George Swartout, Clayton, N. Y.	165.00	Shirley L. Unson, Gillett, Pa.	243.57
Stepped on by cow—internal ankle		Thrown from farm truck—cuts & bruises	
Clinton Meister, Carthage, N. Y.	832.16	Arthur W. Brown, Lawrenceville, Pa.	515.61
Fell on ice—badly injured elbow		Auto accident—fractured arm	
Harold Jones, Churchville, N. Y.	512.00	Harry P. Hupman, Susquehanna, Pa.	117.14
Fell on ice—internal back		Kicked by cow—internal foot	
Frederick Wagner, St. Johnsville, N. Y.	1110.65	Amos A. Stewart, Sr., Long Valley, N. J.	131.90
Loading logs slipped off truck—broke leg		Pruning trees, ladder broke—internal injuries	
Nellie Casler, Clayville, N. Y.	508.36	Frank Lenhardt, Jr., Wrightstown, N. J.	223.92
Fell down cellar stairs—broke elbow, bruises		Slipped getting into truck—broke bone in foot	
Vera Irene Schnerburg, Naples, N. Y.	918.76	H. Lee Melton, Wrightstown, N. J.	612.87
Auto Accident—internal injury to spine		Auto accident—broke ribs, cut face, concussion	
Edgar V. Loring, Florida, N. Y.	212.87	Lewis A. Hildebrandt, Hope, N. J.	310.71
Tractor Accident—internal ankle & foot		Gored & tossed by bull—multiple fractures	

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FREE EVERBLOOMING CLIMBING BLAZE ROSE of extra cost if you mail coupon below by May 15th

To make certain this is the most valuable bargain offer in our entire 20 years of service to flower lovers... as an extra special bonus... orders mailed by deadline date get free of extra cost the (formerly patented #10) Climbing Blaze Rose... 43 plants in all! This sensational rose, once very expensive, blooms again and again throughout the summer into fall in a living blanket of thickly clustered 2-3 inch double roses. Most important, you get 2 year old plants, nursery field grown, #2 standard grade. Already branched with 2 or more canes, all are prepruned all are strong and healthy so they can grow fast, spread rapidly and quickly drape a vivid curtain of blazing red roses over trellis, porch, fence or garden wall. Check order on coupon below and mail to-day!



TULIP TREE

PRIVET HEDGE



MOCK ORANGE



WEIGELIA



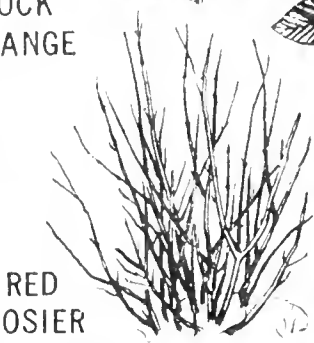
BUSH HONEYSUCKLE



HYDRANGEA P.G.



LOMBARDY POPLARS



RED OSIER DOGWOOD



CORALBERRY



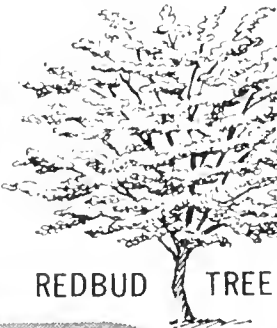
FORSYTHIA



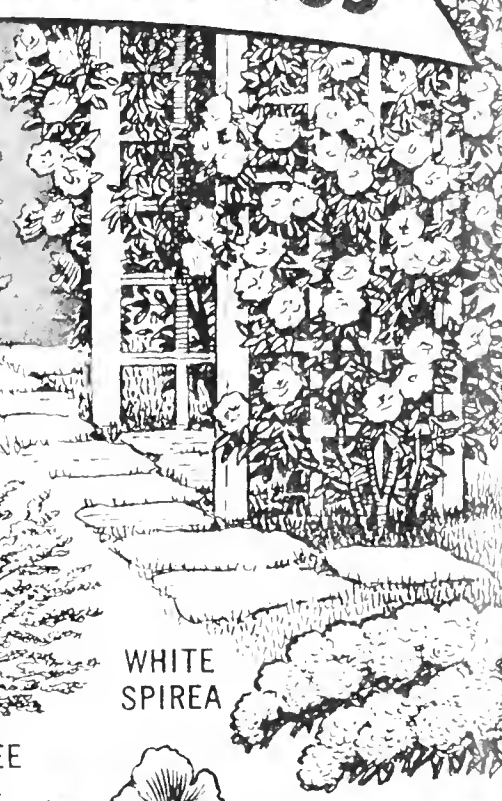
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SILVER MAPLE



REDBUD TREE



WHITE DOGWOOD

WHITE SPIREA



ROSE OF SHARON



PINK SPIREA

Complete Landscape Garden
42 Flowering Shrubs
Blooming Bushes, Trees,
Vines, Hedge Plants
ALL FOR \$2.98
PLUS FORMERLY PATENTED **CLIMBING**
BLAZE ROSE BONUS
Less Than 7¢ Each

HERE ARE THE 43 PLANTS YOU GET

Price shown is what you would pay if ordered from us individually

- 1—CLIMBING BLAZE ROSE (described above) Bonus for Mailing Order before Deadline... \$.99
- 1—TULIP TREE (Liriodendron). Tall shady Blooms are tulip-like... 1.00
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- 4—LOMBARDY POPLAR (Populus Nigra Italica). Graceful columnar form up to 40-70 ft... 1.16
- 1—SWEET MOCK ORANGE (Philadelphus Coronarius). Ht. to 10 feet. Flowers resemble creamy white orange blossoms... .69
- 30 FOOT PRIVET HEDGE (Ligustrum... Species we think best suits your climate). 15 plants... 1.19
- 2—WHITE DOGWOOD (Cornus Florida). Grows up to 30 ft. Large white flowers... 2.00
- 1—DEUTZIA (Deutzia Varieties) 5-8 ft. shrub. Flowers are white or pinkish... 1.00
- 1—RED OSIER DOGWOOD (Cornus Stolonifera) Dark red spreading branches are winter show... .49
- 2—CORALBERRY (Symphoricarpos Orbiculatus) 5-7 ft. shrub attractive in fall with crimson foliage, reddish purple berries... 1.18
- 1—HYDRANGEA P.G. (Hydrangea Paniculata Grandiflora). Giant white flower clusters... 1.00
- 2—WEIGELIA (Weigela Florida Varieties) 8-10 ft. shrub with masses of rose pink flowers... 1.38
- 1—WHITE SPIREA (Spirea Varieties). Spring blooming white varieties... .69
- 1—HONEYSUCKLE VINE (Lonicera Japonica Halliana). White flower changes to yellow. Climbing... .80
- 2—PINK SPIREA (Pink flowering Varieties). 4-6 ft. shrub. Pink flowers in clusters... 1.70
- 3—FORSYTHIA (Forsythia Varieties). 9-12 ft. shrub. Golden Blooms early spring... 1.77
- 1—BUSH HONEYSUCKLE (Lonicera Tatarica Varieties). White to pink flowers in spring. Snowbreaker... .12
- 1—REDBUD TREE (Cercis Canadensis). Heights to 40 ft. Rosy-pink flower clusters... 1.00
- 1—SILVER MAPLE (Acer Saccharinum). Fast growing, often to 120 ft. Leaves bright green above, silvery white below... 1.00

Price If Purchased from Us Individually \$20.34
ALL 43 PLANTS Yours For Only... \$2.98

*Varieties personally selected by our experts as being suitable for most parts of the U.S. In severely cold climates, check for hardiness. Blooms illustrated are reasonably accurate as to shape of varieties named although they may vary because nature often turns out tints and shapes found nowhere else. Evergreens—in extremely hot southern climates check for growth ability. While not anticipated, should we sell out one or more nursery grown varieties we may include instead any equally suitable planting stock, nursery grown or native collected wild of equal or greater beauty. Our 2-Way guarantee protects you

GIANT ASSORTMENT SELLS FOR \$20³⁴ at our individual prices!

A \$20.34 Value for \$2.98? Unbelievable but true. We advertise and sell thousands of this same planting stock, all graded to heights for lining out, individually at the prices listed... and every item is a good value at these prices. Yet you get this entire 43 Piece assortment... 19 popular varieties... enough to landscape the average grounds into a blooming GARDEN OF EDEN that grows more beautiful, more valuable year after year... all for only \$2.98... less than 7c per plant!

Every Plant Certified Healthy and Fully Guaranteed

This 42 piece giant assortment is nursery grown from seed or cuttings or nursery grown transplants... certified healthy in state of origin... shipped vigorously alive, well-rooted, 1 to 2 feet high, 1 or 2 years old, an ideal size for original transplanting. All tagged with individual item name... All fully guaranteed. FREE 4 professional planting guides included to help show off your property to best advantage.

SEND NO MONEY

FINAL OFFER! Your giant 42 piece landscape garden assortment plus Climbing Blaze Rose bonus will be sent at proper spring planting time with roots scientifically wrapped in moist material. Cultural instructions included. If C.O.D. postage extra. Cash orders add 65c and we ship postage paid. Fully guaranteed, be satisfied on arrival or return within 10 days for purchase price refund. Any plant not developing, replacement is free (5 year limit). Order now before deadline date to get the Red Climbing Blaze Rose free of extra cost. Clip and mail coupon today!

FREE! 4 Different Planting Layouts Included At No Extra Cost To Show Blooms To Best Advantage

MAIL THIS COUPON TODAY

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Grand Rapids 2, Michigan
- Send order as checked. If not satisfied on arrival for Spring Planting, I may return within 10 days for purchase price refund.
- ☐ GIANT 42 PIECE ASSORTMENT plus Climbing Blaze Rose Bonus and 4 planting guides... \$2.98
- ☐ Double Order 84 Plants plus 2 Climbing Blaze Roses and 4 planting guides... 5.85
- ☐ 12 PIECE EVERGREEN FOUNDATION PLANTING (described on left) 3.93
- ☐ Double Order 24 Evergreens... 7.65
- ☐ 100 FOOT PRIVET HEDGE (50 Plants) described on left... 3.98
- ☐ Double Order (100 plants)... 7.65
- ☐ Remittance Enclosed. Add 65c and we ship postpaid ☐ Send C.O.D. plus postage.

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ADDRESS _____
CITY _____ ZONE _____ STATE _____

MASSES OF COLORFUL BLOOMS Year after Year...Without Replanting

Everyone loves to watch things grow. Now thrill to the splendor of flowering shrubs, blooming bushes, gorgeous garden plants, ornamental trees, colorful vines... even a handsome hedge to dress up and improve the appearance and value of your property... all at the lowest cost imaginable. Today... mail coupon for this amazing bargain offer. With the valuable CLIMBING BLAZE ROSE that's yours FREE of extra cost, you get 43 plants, our finest planting stock... all for only \$2.98... less than 7c each!

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1. If not satisfied on arrival return within 10 days for purchase price refund.
2. Any plant not developing, replacement is free (5 yr. limit).



EVERGREENS* 34¢

12 Piece Foundation Planting... all For \$3.98

6 popular varieties! 12 Evergreens, 1 to 3 year old planting stock, nursery grown from seed or cuttings. 4 to 12 inches tall for easy first transplanting. YOU GET THESE: 2 COLORADO BLUE SPRUCE (Picea pungens), 2 EASTERN RED CEDARS (Juniperus Virginiana), 2 PFITZER JUNIPERS (Juniperus Chinensis Pfitzeriana), 2 AMERICAN ARBORVITAE (Thuja Occidentalis), 2 DWARF MUGHO PINES (Pinus Mugho Mughes), 2 AUSTRIAN PINES (Pinus Nigra).

Check coupon and get these 12 evergreens for spring planting only \$3.98...less than 34c each!

MICHIGAN BULB CO., Dept. SB-1400—Grand Rapids 2, Michigan



APRIL 1963

American Agriculturist



How are we going to get 'em

By GORDON CONKLIN

THROUGH TO GRASS?

SUCH A WINTER as the past one always makes farmers wish for an early spring, but this year there is a special urgency to such hope. Because of the drought last summer many a dairyman is casting anxious glances each day at his dwindling haymow. "Wonder if it'll carry me through to grass"—this is the gnawing thought that spoils Sunday dinner and makes some dairymen more than usually oblivious to the conversation of their wives.

Hay—and even straw—seems to be almost gold-plated these days. Bill Pendergast, county agricultural agent in Orange County, New

York, reports that dairymen in his area are paying as high as \$55 to \$60 a ton for hay. Cleon Barber, agent in Broome County, New York, said he heard a conversation recently about a local auction where, after the hay was sold, the chaff on the barn floor went for \$25 a ton!

If you still have to buy hay, may the sellers have mercy upon you! Most hay dealers are honest, but there have been reports of a little skullduggery in the haymow here and there. A 36 foot truck bed has 57 to 60 standard-sized bales on a tier, a handy way to estimate

tons delivered after you've weighed a few bales to get average weight per bale. If in doubt, insist on having the truck weighed full and empty on a local scales.

Bill and Cleon are only two of the county agents contacted to find out more about what farmers have been and are doing to meet the roughage shortage, and what recommendations are being made for the future. We visited with agronomy and animal husbandry specialists at several agricultural colleges in the region so the results of their research and field observations could be included. (Continued on Page 16)

A CONSTRUCTIVE FORCE IN NORTHEASTERN AGRICULTURE



Which GLF POWERCRUISER Rolled 20,000 MILES?

If you have a keen eye for detail, you may be able to spot the two year old GLF Powercruiser that's rolled almost 20,000 miles. But the unretouched photo proves our point. These nylon cord tires are so tough and safe we don't even bother with time or mileage limitations in our guarantee.

Drive your Powercruisers 10, 20 or 50,000 miles. Keep them one year or ten. Your GLF guarantee will protect you against defects and road hazards for the full life of the tire.* You get trouble-free original miles. No costly replacements.

See for yourself. Check the unsurpassed tread depth ... width ... construction. Built for longer, safer mileage. Road-gripping. Dependable. Tough. But easy on the family budget.

Like all GLF products, this Powercruiser is priced right to give you good, honest value. Pick up a set at your GLF Service Agency today. Cooperative GLF Exchange, Inc., Ithaca, N.Y.

*pro-rated to give full value for remaining tire life based on tread depth.

SPECIAL POWERCRUISER SAVINGS

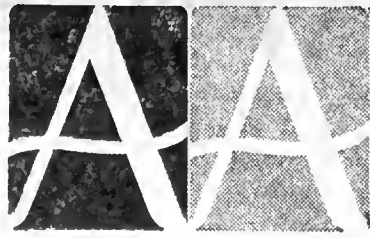
Blackwall Tubeless—650x13. Regularly \$18.95 plus tax
Now \$14.95 plus tax

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American Agriculturist

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Founded 1842 Volume 160 No. 4

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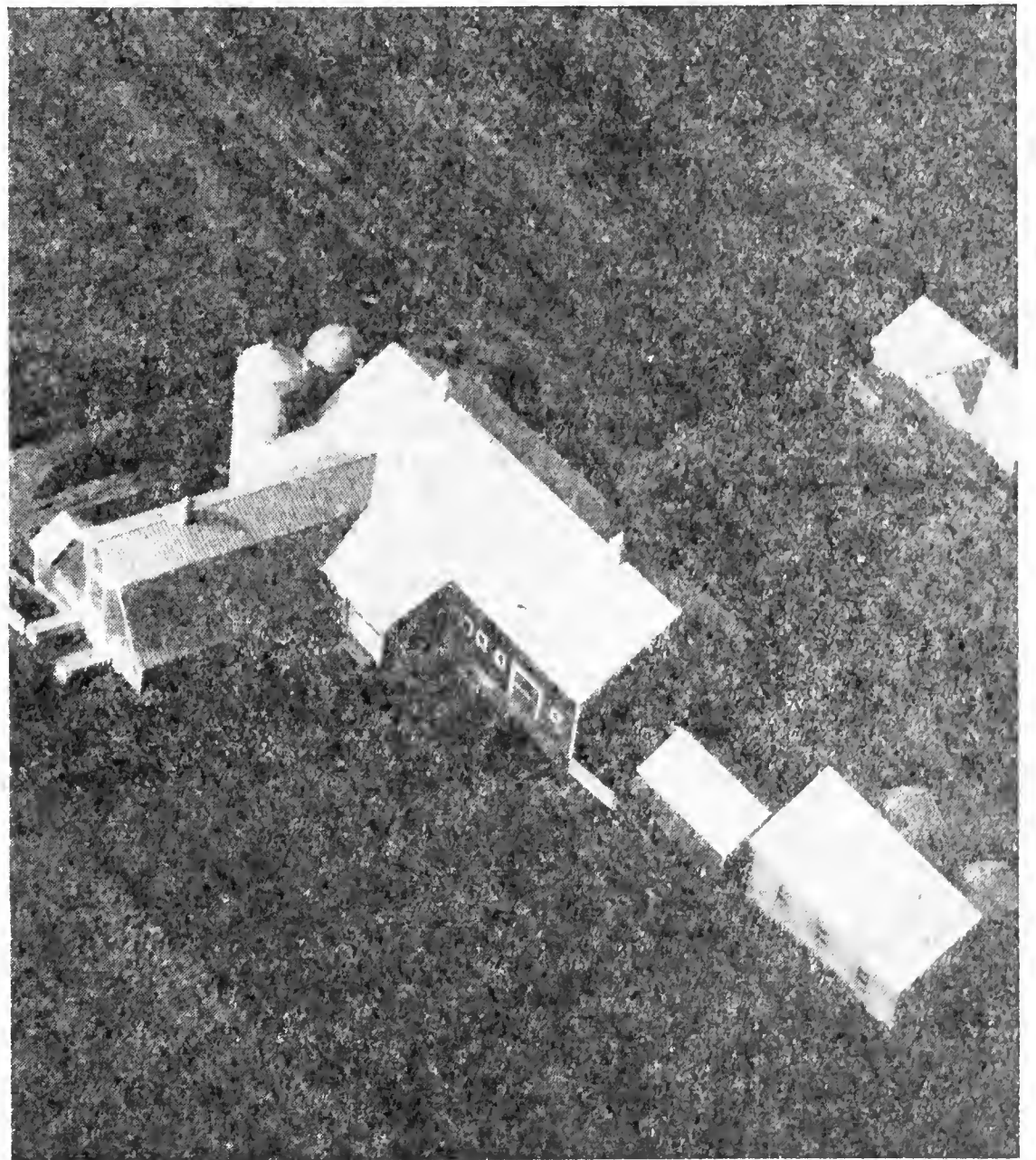
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MEET

WALT GRIFFETH, who often writes for American Agriculturist (see article on page 19), was born and raised on a general dairy farm near Middleville, Michigan. He was in partnership with his father on the farm for a number of years, then enrolled at Michigan State. After college he worked at the Northern Virginia Pasture Research Station at Middleburg, less than a mile from what is now the country home of President Kennedy. He has been an Extension agronomist at Cornell for the past eight years. Somehow, Walt also finds time for his family (four children) as well as to teach a college age Sunday School class at his Baptist church.



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EDITORIALS

BY GORDON CONKLIN



"I'LL SAY AMEN TO THIS"

MERITS OF the free enterprise system have long been discussed by editors of *American Agriculturist*. Some of the basic reasons for their stand were well summed up by President Kennedy at a 1962 White House conference of business editors and publishers. Here is what the President said:

"I would like to say one word about the competitive market system because I think there seems to be on occasion, some question among businessmen as to the views of those of us in Washington on this matter. Our experience during the present expansion has also demonstrated our ability to achieve impressive economic gains without shrinking the area of market freedom. I regard the preservation and strengthening of the free market as a cardinal objective of this or any Administration's policies.

"It is well to remind ourselves from time to time of the benefits we derive from the maintenance of a free market system. The system rests on freedom of consumer choice, the profit motive, and vigorous competition for the buyer's dollar. By relying on these spontaneous economic forces, we secure these benefits:

(a) Our system tends automatically to produce the kinds of goods that consumers want in the relative quantities in which people want them.

(b) The system tends automatically to minimize waste. If one producer is making a product inefficiently, another will see an opportunity for profit by making the product at a lower cost.

(c) The system encourages innovation and technological change. High profits are the reward of the innovator, but competitors will soon adopt the new techniques, thus forcing the innovator to continue to push ahead.

"The free market is a decentralized regulator of our economic system. The free market is not only a more efficient decision maker than even the wisest central planning body, but even more important, the free market keeps economic power widely dispersed. It thus is a vital underpinning of our democratic system.

"Price and wage controls paralyze the operation of the free market, and that is why we have opposed them. Likewise, unnecessary Government regulation undermines the efficiency of the market."

It is my understanding that Secretary of Agriculture Freeman was not in attendance at this meeting, but perhaps he will get the message.

LOOK HOMEWARD

IF YOU'RE like me, you probably find yourself griping about "those politicians" pretty often. It's mighty easy to find a reason, too, because those whose profession depends on the ballot box sometimes seem awfully inconsistent at best, and downright shiftily at worst!

But we should remember that a successful politician is one who can determine what the voters want—and arrange that they get it. We, the people, want a great deal. Those in

elected positions are a mirror of the times—a reflection of the mood of the electorate.

To the extent that we can't live within our means in our own homes, we give our elected leaders the green light to do the same with public affairs. If we argue that a government check making an "adjustment to parity" is **not** a subsidy, then surely we should forgive a governor for saying that a fee is **not** a tax! If we believe that the influence of supply and demand departed with the horse and buggy, we shouldn't argue with the brand-new logic of the presidential adviser who claims that an eight billion dollar annual deficit is a "deficit of weakness," but red ink to the tune of eleven billion dollars is a "deficit of strength."

Guess what I'm saying is that the politicians have the same problems as you and me when it comes to being realistic. Like the Good Book says, we need to look for the speck in our own eyes now and then in order to understand the logs in the orbs of our elected officials.

DAYLIGHT SAVING TIME

THE NEW YORK State Automobile Association is pressing for making Daylight Saving Time effective in the State the year around. The organization claims that there are 24,000 traffic accidents annually in the State between 4 and 6 P.M., compared to 13,000 in the morning rush period. If the clocks were moved up, they say, lives would be saved because there would be more light for driving when suburban and city people head home from work.

Somehow, I think this idea was conceived by someone whose children do not ride school buses. My daughter gets aboard the bus in the winter when it's still pretty dark; moving the time up an hour would make pickup time before sunrise for a considerable number of weeks. Personally, I'm agin' fiddling with our clocks any more than we do now. How about you?

WHAT'S IMPORTANT?

EVER HEAR yourself saying, "There just aren't enough hours in the day"? One of the occupational hazards of living is the temptation to join umpteen organizations, attend a meeting every night, teach a Sunday School class, serve as a local public official, work on the United Fund drive, lead a 4-H Club, and carry a full load on the farm, in the home, or at a business. There are so many desirable things to do, so many tasks that "ought" to be done.

All this reminds me somewhat of our present national attitude toward the rest of the world. We seem to be convinced that all desirable things should be done at once—and that the United States of America is capable of doing them all.

From the problem of illiteracy in the land of the Hottentots to the shooting war in Laos, we seem convinced that the burden all belongs to Uncle Sam, and our relatives in the family of nations agree with us 100 percent. Eighty billion dollars plus in foreign aid over the years attest to the vigor with which we have pursued our neighbors' welfare.

As individuals, how do we decide where to

put the emphasis in our activities? Learning to say no is equally as important as learning to say yes, because saying yes to everybody reduces the effectiveness with which we work at any one task.

The idea that Uncle Sam can provide all things for all people is a bunch of ivory tower nonsense, springing from dreamy-eyed intellectuals who never had the experience of sweating out a mortgage payment. Yet the basic humanity of every person, coupled with Christian principles, tells us that we should help the people of other nations help themselves. In my opinion, the emphasis should be on helping them to develop the skills and know-how whereby they can create their own wealth, rather than reducing them to a steady dole from Uncle Sam.

On what basis have you chosen to say "yes" or "no" to the many programs designed to promote constructive things in your home, school, church, and community? On what basis can emphasis be placed on foreign aid programs to promote constructive ends and still remain realistic?

DECLARATION OF DEPENDENCE

JUDGING BY the tenor of much that goes on in our nation, founding fathers from this generation might have re-worded part of the Declaration of Independence something like this:

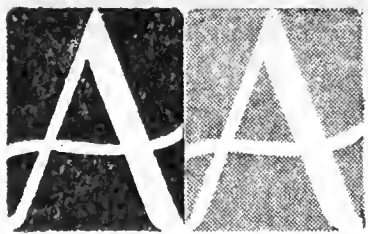
We hold these truths to be self-evident, that all men are created to have equal incomes, that they should be endowed by their Great White House Father with certain unalienable rights, that among these are ease, a featherbed and the pursuit of a fast buck. That to secure these rights, politicians are elected among men, deriving their popularity from the material satisfaction of the governed. That whenever any elected official becomes resistant to such demands, it is the right of the electorate to throw him out of office, and to elect a new government, laying its foundation on such principles and organizing its powers in such form, as to them shall seem most likely to effect a full wallet and a shorter work week.

FARM TRANSITION

THE CENSUS people call many places in the country "farms" that wouldn't quite meet the definition to many of us. If I remember correctly, their definition is that a farm is a place of 10 or more acres if the yearly sale of agricultural products is at least \$50; or a place of less than 10 acres if sales of products amount to at least \$250. Places not meeting the minimum requirements are nevertheless counted as farms if they can normally be expected to produce agricultural products to meet the requirements of the definition.

Saw some figures recently pulled together by Farm Business Service for the year 1960 that says 37 percent of "census farmers" worked off the farm more than 100 days in Connecticut, 41 percent in Maine, 39 percent in Massachusetts, 35 percent in Maryland, 46 percent in New Hampshire, 29 percent in New Jersey, 34 percent in New York, 39 percent in Pennsylvania, and 30 percent in Vermont.

That year, a whopping seven billion dollars was earned by farmers off the farm from what the USDA calls "other sources." Fewer people than 10 years ago are required to operate the nation's farms; here's evidence that many people are shifting gradually to other jobs. It also indicates how some pessimistic figures for annual farm income may be obtained by using the total number of farmers but at the same time including strictly farm income in the calculation.



FARM DOLLAR GUIDE

YOU NEED TO UNDERSTAND CHANGES IN GOVERNMENT PLANS AND ATTITUDES TOWARD AGRICULTURE. They will continue to affect your management decisions and your profits. You can't afford to ignore them. Here are some guideposts:

1. For good or for evil, government will continue to muddy agricultural waters. For one thing, Washington feels it cannot, for political reasons, permit total net farm income to drop. At the same time there is great pressure from consumers to cut the cost of government agricultural programs.

2. Because farmers and Congress refused to go along with compulsory production controls, the emphasis has been shifted to voluntary supply management with financial rewards for farmers who reduce production. This does not mean Administration has abandoned idea of government management of production.

3. Solution to the problem continues to be difficult. No way has yet been found (or is likely to be found) to get supply and demand for farm products into balance without hurting some farmers.

4. Emphasis is being shifted from the farm to the rural community through the Rural Areas Development Program. Government money is available to develop income-producing recreation; farmers and farm youth will be encouraged to get jobs outside farming.

The short-time outlook is for some increase in gross farm income, some continued increase in farm costs, a continued "squeeze" for two or three years, but better returns in the future for farmers who stay in business and meet change with change

LOW MOISTURE FORAGE (haylage) can be stored in an airtight silo at 35-50 percent moisture; in a good conventional silo at about 55 percent. Haylage loses fewer nutrients in storage (8-12%) than does direct-cut material. High moisture shelled corn can also be stored in airtight silo.

ON JANUARY 1, U. S. LIVESTOCK AND POULTRY NUMBERS, compared to a year ago, were as follows: **BEEF ANIMALS up 6%**; **DAIRY COWS down 2%**; **HOGS up 3%**; **SHEEP down 4%**; **HENS down 1%**; **TURKEYS up 2%**.

The Song of the Lazy Farmer



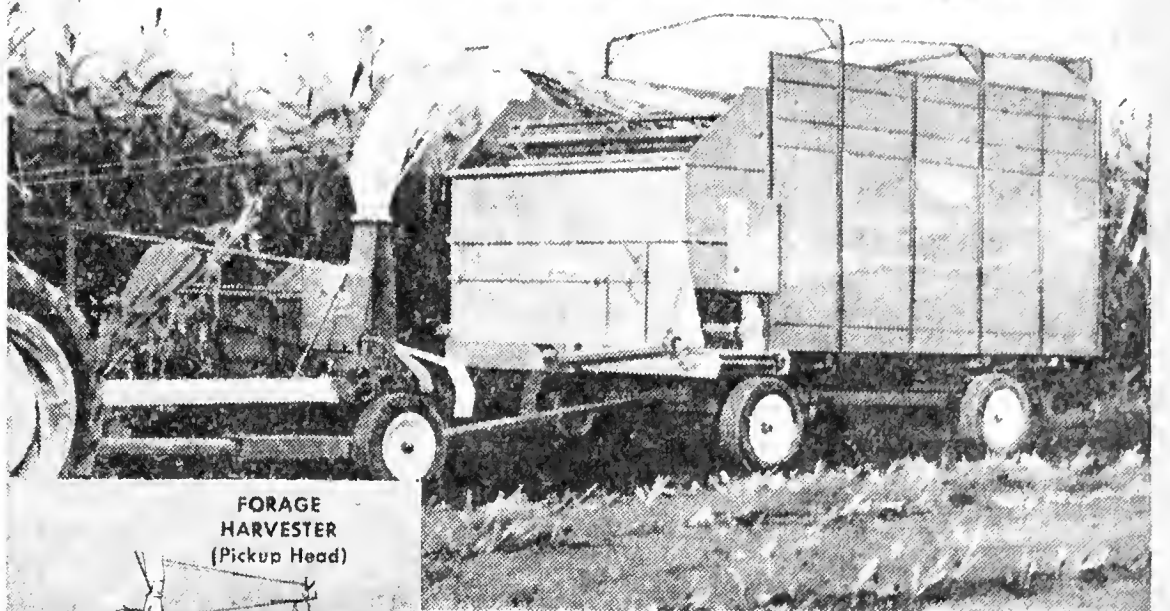
bit if you would live as lazy and relaxed as me; and it don't really hurt, by gee, your reputation won't be spoiled just 'cause for half an hour you've toiled, the only thing that's really wrong is staying at it all day long.

YOU'VE GOT to look ahead and plan if you desire to be a man who's famous for his laziness, you can't leave it to chance and guess. The first thing you must recognize is that it simply isn't wise to try avoiding any toil, 'cause then your wife will surely boil and probably make sure you do more work than just a chore or two. The thing to do each day is find some simple projects of the kind that won't take too much time away from catching up on sleep or play; but still enough to make her see that you ain't loafing constantly.

Each morning I make sure I do some job I've been ordered to, like toting water to the hens or feed to one or two calf pens. Mirandy's usually so impressed she helps me finish up the rest, and all day she forgets to shout about how I'm a lazy lout. In other words, you've got to give a little

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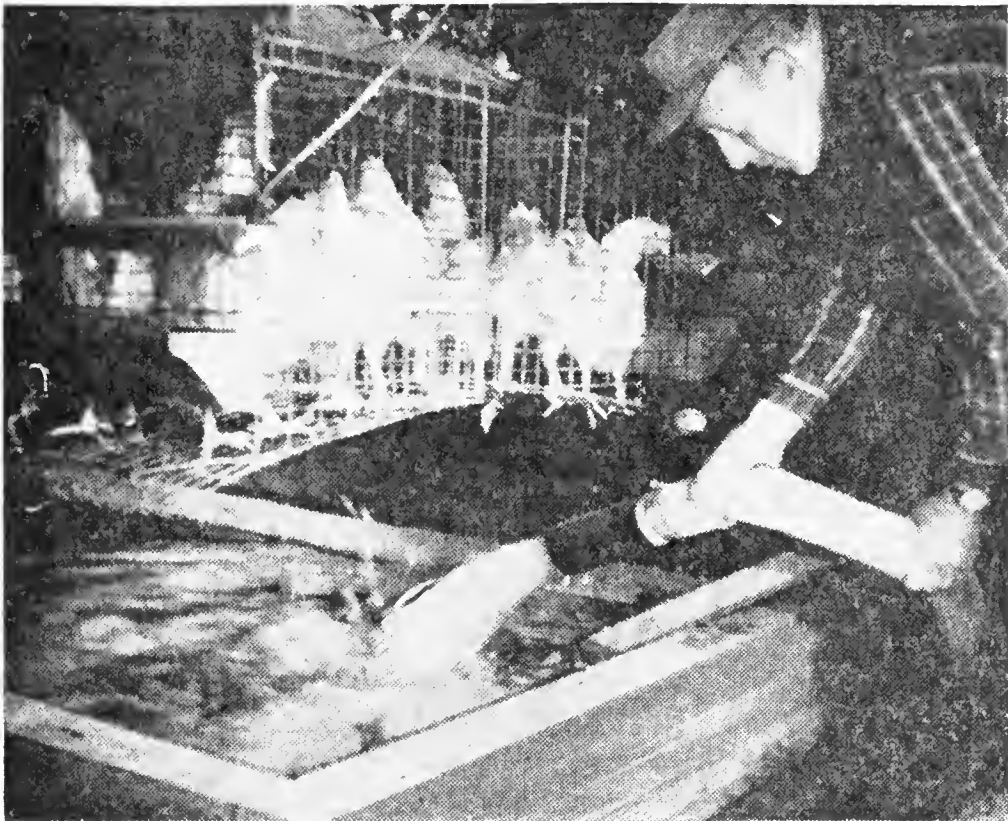
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GLF



Rolland Congdon directs water being recirculated from the septic tank into one of the troughs underneath the cages. A one-hundred-gallon-per-minute pump is used.

HYDRAULIC HENHOUSE

A System of Liquid Manure Handling for Caged Layers

By Curtis Johnson*

APROMISING SOLUTION to the problem of poultry manure disposal is being developed in Massachusetts. It consists of a hydraulic handling system and a large septic tank. From the third compartment of the tank, the effluent is pumped back to the laying house, and is used to operate a hydraulic scraper for cleaning the manure from a simple trough under the cages. The system has been farmer-tested by Rolland Congdon, East Longmeadow, Massachusetts—from December 1, 1962 to the present—and found acceptable.

Measurements are now being made of the changes taking place in the material inside the septic tank. It is believed that the chemical analysis of the fertilizer elements within the tank will build up to sufficient value that yearly emptying of the tank may be more than paid for by the sale of the fertilizer. However, final proof of this will need to await a year's record.

Exact operating cost figures must also wait for a year's records. Because of very cold weather last winter, the tank temperature was down to 48°F in January, and bacterial action was slowed. On February 24 Rolland decided he had better clean out the solids. One unforeseen difficulty in cleaning was that feathers tended to clog even the best of pumps. Plans are underway to heat the material in the tanks, perhaps with gas or oil, to speed bacterial action. Heating should permit it to go through the winter season without cleanout.

I want to emphasize that we anticipate hav-

* Agricultural Engineer, University of Massachusetts

ing to make changes as we go along, meeting each situation as it comes.

The operating water requirements of the system are virtually nil—only the water overflowing from the bird waterers is used to submerge the droppings under the cages. The circulating water used for removing the manure required an investment of about \$20—the cost of water from a municipal water system for the initial filling of the septic tank. Fifty thousand gallons were filled in at the rate of about 1,000 gallons per day during the first weeks of operation.

The components of the system are as follows:

1. **Dropping troughs** under the cages. Concrete blocks (4" x 8" x 16") on edge were used, mortared on the existing concrete floor. Inside dimensions of each trough is 44" x 8". In this case, 90 feet of cages are in each row, housing 875 hens.
2. **Removable gates** with rubber seals are used to cover the full width of the end of each trough. One trough is drained and cleaned each day; with eight rows of cages, eight days of manure accumulation is removed from under a different row of cages each day.
3. **A cross-trench**, full width of the building, accepts the flow of water and manure, discharges it into a plastic pipe 12" in diameter. The trench is 2' x 2', cast in the floor and sloped toward the drain pipe.
4. The 12" **plastic pipe** drains the manure in a liquid form to the septic tank, discharging it horizontally.
5. The 50,000 gallon **septic tank** is built of

standard 8" concrete walls, similar to poured-wall basement construction. The overall size is 30' x 36' by 8' wall height. A gabled roof, with 4 inches of insulation in the rafter space, plus end wall and perimeter insulation, helps keep the fluid at relatively uniform temperatures.

6. Partitions in the tank divide the system into **anaerobic** (without air) and **aerobic** (with air) **compartments**. The 25,000 gallon anaerobic tank receives the manure and flushing water first, each day's "charge" consisting of about 500 gallons of manure, plus overflow drinking water and about 1,100 gallons of water (effluent) pumped out of the septic tank to push the solids out of the trough.

This 1,600 gallons of material displaces an equal amount of fluid from the anaerobic tank, forcing it on to the aerobic tank. Thus, 25,500 gallons divided by 1,600 makes a detention period that averages 16 days for the anaerobic digestion.

7. A similar 16 days detention period in the aerobic tank follows. **Perforated pipe** in the bottom permits bubbling air through this fluid by means of an air compressor, to promote bacterial destruction of organic materials suspended in the fluid.

8. A **floating dam scraper**, designed to fit all of the troughs under the cage layers, rides down the trough in front of the effluent that is being pumped in from the septic tank at the rate of 100 gallons per minute from a 2 H. P. pump. The scraper has a "squeegee" action, with its rubber blades contacting the sides and bottom of the trough, sealing it as a dam across the trough.

When the water level rises to the point that it overflows the rear board confining the water, it is then caught between rear and front board. Flotation material (expanded polystyrene) displaces some water near the front board, causing it to rise. When this happens, water can flow out under the front board, liquifying manure ahead of the scraper.

9. The **pump** that moves water from the septic tank to the troughs under the cages is direct driven by an electric motor, has a stainless steel shaft and impeller to prevent corrosion. Two-inch plastic pipe is used throughout, to avoid corrosion and reduce resistance to the flow of fluid.

The septic tank structure was sealed so that methane gas given off would be a source of energy for the heating of the septic tank. Higher temperatures speed up the rate of biological activity.

Experiments in Germany indicate that the fertilizer values obtained from such liquid manure systems are consistently higher than those obtainable from commercial mineral fertilizer, and that practically 100 percent of the nitrogen in the manure may be conserved.

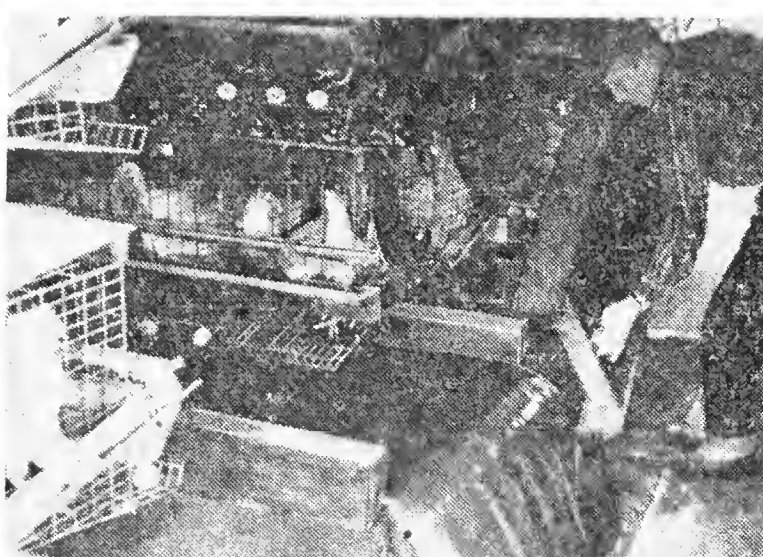
Some of the advantages observable at this first installation are:

1. **Ease of handling manure**—completely by fluid means.
2. **Minimum "moving parts"**—only a pump and a motor to wear out, and these are used but 20 minutes a day.

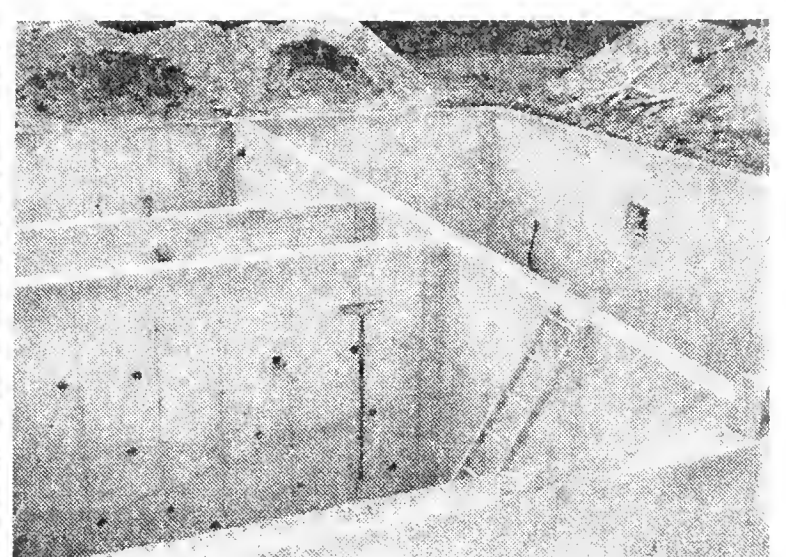
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Here is a model of the floating-dam scraper that moves manure ahead of it as it is pushed forward by the water.



When the scraper reaches the cross-trench, it is lifted out and the rushing water completes the cleaning.



The septic tank is built of cast concrete, divided into various compartments for maximum digestion of organic matter.

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exclusive herringbone pattern with tapered flutes; the bold new idea in hay conditioners that reduces plugging; saves time, trouble and tempers

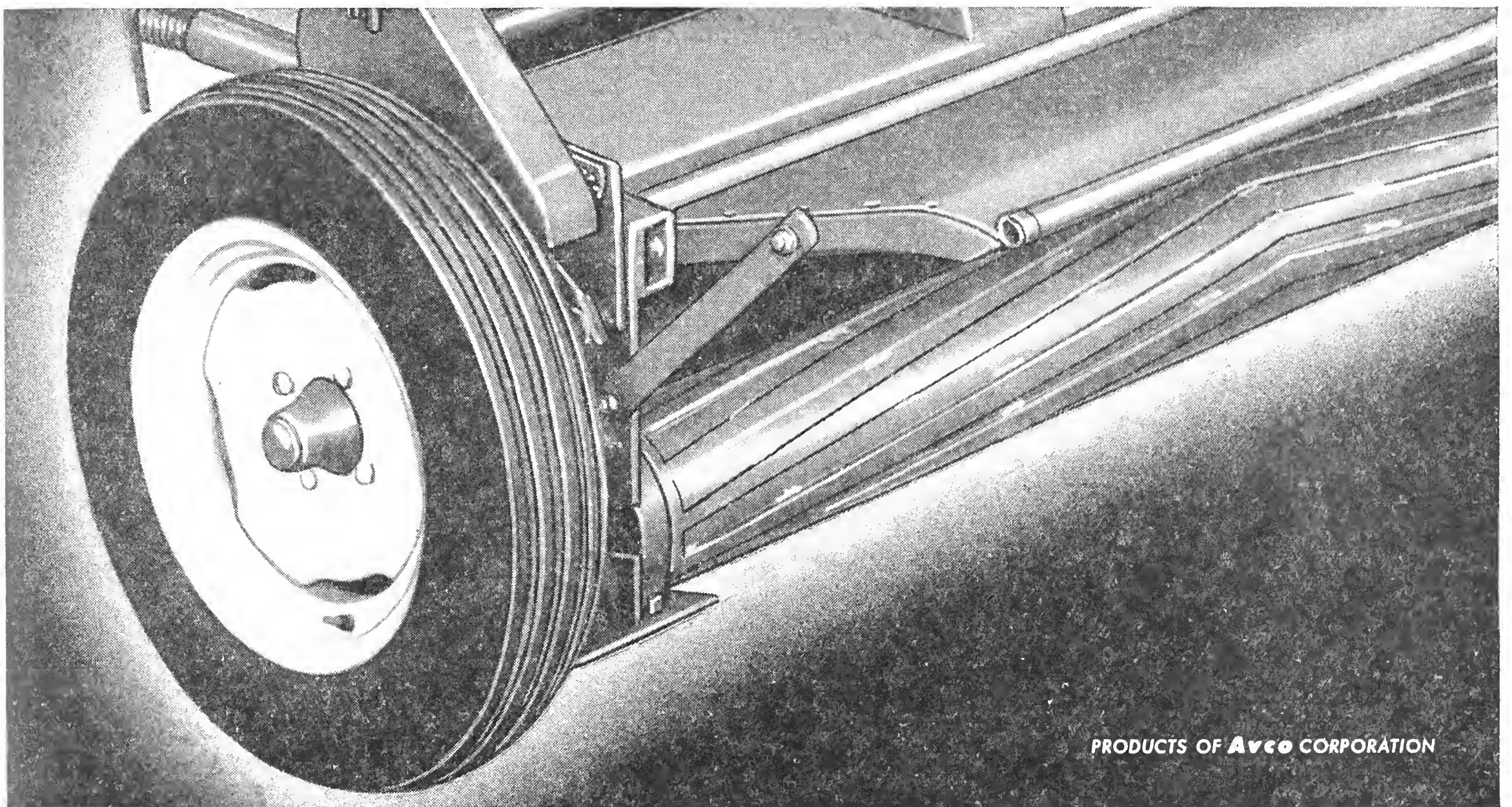
We call it "Free Flow" design because it's almost impossible to plug. The secret's in a bold new idea from New Idea — an unusual lower steel roll with tapered flutes in a herringbone pattern. Top roll is tough rayon cord and new, live rubber.

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LIME PLUS MANAGEMENT

Doubles

NET WORTH

By R. B. CHILD



Bill Walldroff (left), Jefferson County Agricultural Agent, Russ Hodnett, and Professor L. C. Cunningham of Cornell (writing), discuss in 1955 what needs to be done with this field where bromegrass and alfalfa were playing out.

IF I HADN'T soil-tested, limed adequately, put on enough fertilizer, pushed up my hay yields, and increased my number of cattle, I wouldn't be here today." So says William A. Walldroff, 32-year-old dairyman of LaFargeville, Jefferson County, New York.

You may recall the American Agriculturist report of April 1959 on the Walldroff lime-financing demonstration described in the table below. This lime-financing demonstration was carried through, and a long-term repayment schedule arranged, with the cooperation of General Crushed Stone. Bill was so impressed with the results that he spent over \$1,300 for lime for all his fields.

TABLE 1.
LIME-FINANCING DEMONSTRATION
127 Tons of Lime Applied to 47 Acres, Fall, 1957

Year	Income from Lime	Payment for Lime, Principal & Interest
1957	No	None
1958	No	None
1959	Yes	\$304
1960	Yes	236
1961	Yes	224
1962	Yes	212



Here's the same field in June of 1962. Lime, fertilizer, and good management made the difference.

Soils

Dr. Reeshon Feuer of Cornell's agronomy department points out that Bill's dramatic response to an adequate liming program was done "at the lower end of soil resources." Soil types on the Walldroff farm are Pantan and Vergennes.

Pantan clay loam has fine texture, fair tilth, medium natural lime level, high natural potash-supplying power, fair response to management, with the limiting factors of cloddiness

and poor internal drainage, which in turn mean late spring planting.

Vergennes silty clay loam is a fine-textured soil, moderately well drained, with good tilth and depth, high natural potash-supplying power, medium natural lime level; the limiting factors are some cloddiness and delayed spring planting, but with possibilities of good response to management.

Walldroff has demonstrated that his soils will respond when properly managed. Russ Hodnett, Jefferson County agent, firmly believes that unless lime had been brought in ahead of other inputs, such as fertilizer, those inputs would have been wasted.

Production Expense

Bill bought the farm in 1953. He says, "My first four years without adequate liming certainly was a period of tough going."

As shown in Table 2, the average weighted pH (a measure of soil acidity) of all cropland in 1956 was 5.7, and in 1962 it was 6.4. The subsoil on the Walldroff farm is alkaline — once the surface pH is raised, the pH of the entire area on which the plant roots feed stays up pretty well.

Bill spent a total of \$3,143 for lime in the seven years, 1956-62. He spent \$5,733 for fertilizer in these same seven years, making a grand total of \$8,876 expense for lime and fertilizer. Bill believes that "about \$300 per year for lime in future years will maintain pH at a desirable level."

After the peak of expenditure for lime plus fertilizer in 1959, hay yields continued to increase per acre each year. Bill has been able to level off on his crop expenses during the past two years, riding on former inputs. Crop expenses per year probably will go up again, though, in 1963.

The combined TDN available in a bigger hay crop, along with purchased feed, has increased production per cow from 11,300 pounds in 1956 to 12,200 in 1962. Bill says, "Figures to date indicate we will have an average of about 13,000 pounds this year."

To be sure, there is a period of discouragement when the expenses are high for lime and fertilizer, and the results are not seen for a year or two later. Bill held on, and the results are showing.

Hay Yields

Bill has been a cooperator in the Jefferson County Farm Business Management Program for several years. His carefully-kept records show hay yields were 2 tons per acre from 1956 to 1958; then they went up to 2.8 tons in 1959, to 3.6 in 1960, and all the way up to 4 tons in 1961. Even though 1962 was mighty dry in his area, he averaged 3.3 tons of hay per acre that season.

Severe winter kill of legumes in the winter of 1959-60 hurt hay yields in 1960. Bill plugged the hole by putting 100 pounds of 45 percent urea per acre on fields where legumes were thin. This management step, plus the good fortune of having an excellent growing season in early 1960, kept the hay yield of 3.6 tons per acre as high as it was.

Today, Bill has no more concern about being able to produce the feed needed by 85 milkers.

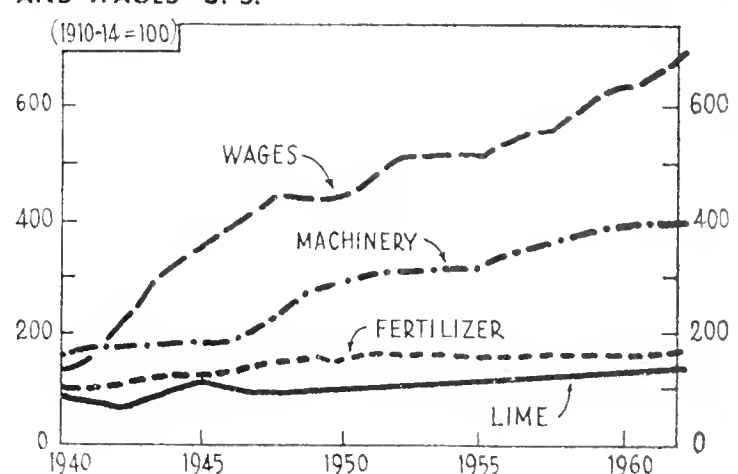
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TABLE 2. SEVEN YEARS OF PROGRESS ON THE WALDROFF FARM

Year	*Soil Test, pH	Lime Expense, Dollars	Fertilizer Expense, Dollars	Hay Yield per Acre Tons	Milk Cows, No.	Feed Purch. per Cow, Dollars	Man Equiv.	Milk Prod., Thous. Pds.	Net Worth, Dollars
1956	5.7								\$ X
1956-58									
Average		\$307	\$867	2.0	48	\$ 82	1.8	490	
1959-61	6.4	670	760	3.5	56	129	2.2	651	\$2X
Average		212	721	3.3	64	111	1.8	781	
1962				(Dry yr.)					

* The soil test pH figures are weighted averages based on acreages of all crop fields.

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— American Agriculturist, April, 1963

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Dynaclonic design gives you more actual *work-power* every hour . . . for every gallon of fuel. Each fuel charge is packed into a swirling tornado before it is fired. "Maximum turbulence" the engineers call it—and the fuel-air mixture is so completely blended that practically every particle is converted into piston thrust. This combustion efficiency coupled with long-stroke high-torque design give Dynaclonic tractors the lugging power to *pull through* where

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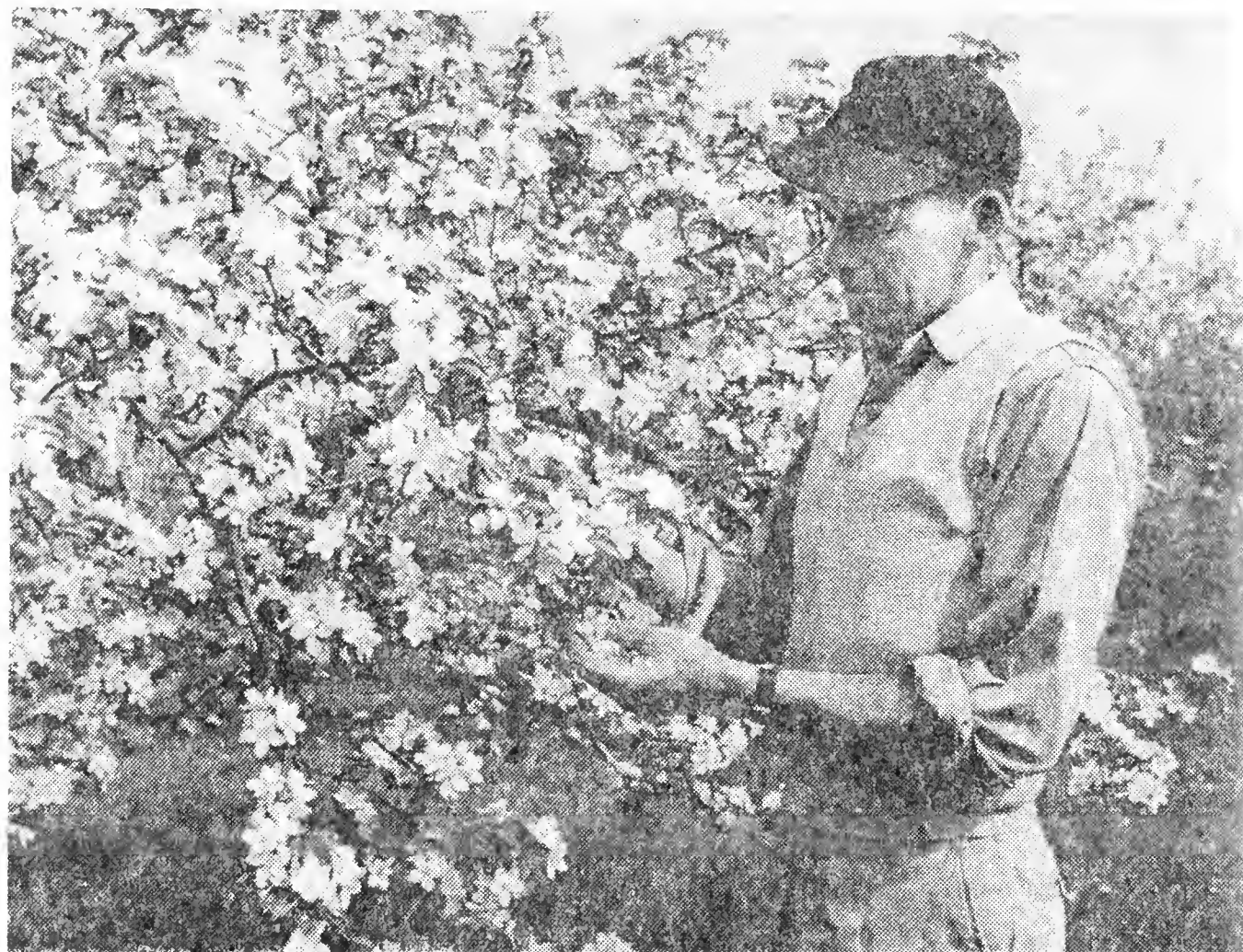
• RACINE, WIS.





From Orchard to Supermarket

By MONROE COLVETT



Bud Rogers inspects an excellent apple bloom in his orchard.

BUD ROGERS of Southington, Connecticut, is a marketing man. He manages the 275 acre Rogers Orchards, Inc. at Southington, is a member of the Laurel State Fruit Growers Marketing Association (composed of nine leading Connecticut fruit growers), and acts as the group's negotiator with the grocery chain, First National Stores of Hartford.

His marketing season actually starts the first of August and runs through April, but he is looking to the future when the season could be stretched through early summer. For the meantime, however, this would conflict with his busy pesticide application schedule.

Under the Association's marketing setup, the packers deliver apples directly from cold storage to individual stores within a day of packing, so that they arrive farm fresh and in top condition. This eliminates time-consuming warehousing, and contributes to lowering chain store operating cost. Fruit quality is upgraded, and spoilage is reduced to a negligible point.

Growers have a relatively stable, season-long outlet for quality fruit, a price that reflects high quality of fruit delivered, and increased movement. Also, they are given the opportunity to build up a name for quality, to see good apples reach the consumer, and have a ready-made barometer of the market through the chain stores.

In areas that lack concentration and volume of production necessary for concentrated packing or selling, the chain store delivery can be of value. The Association has recently completed its sixth year of organized store-door delivery, and serves over 100 medium-to-large supermarkets in Connecticut and in Westchester County, New York.

The Chain store buyers say that the store-door delivery has proved a godsend. It puts better quality apples before the customer, helps build grower interest in the brand and brings about additional sales to more satisfied customers.

Fruit-O-Matics

Besides dealing directly with grocery store chains for farm-to-store delivery, Bud's father, Harold Rogers, has a unique marketing gimmick—vending machines. He has 20 machines in different locations that eject fresh fruit to the tune of coins plinking in the "insert coin here" slots. The refrigerated robot salesmen, dubbed "Fruit-O-Matics", hold 205 pieces of fruit, and offer four or five varieties, including apples, pears, peaches and citrus. To insure a good profit, Mr. Rogers sets a minimum: 150 pieces of fruit must roll out of the machines daily or their locations are changed.

"Thus far, the machines are doing well," he said.

The ten-man, year-round crew at Rogers Orchards spends the winter (through April) pruning and packing out. In pruning, they bring all trees to a level that can be reached by a 20 foot ladder, keeping trees young by bringing in new wood with heavier pruning. Even the 40-year-old trees are still producing well.

Bud Rogers has done tissue testing on occasion, soil tests about every third year, and checks the fertilizer needs by observation in other years. One year he uses a complete fertilizer, in another potash and nitrogen, then nitrogen (ammonium nitrate) alone. He applied 300 pounds of 0-15-15 per acre in 1962, plus the nitrogen applied separately.

Wants Good Color

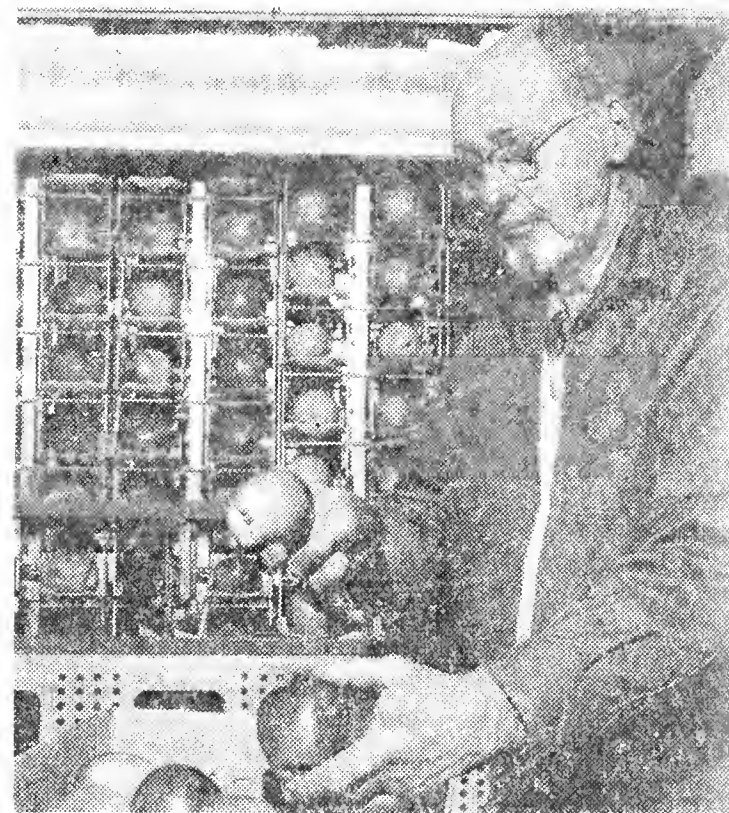
"We watch nitrogen very carefully, because we want the very best possible color and firmness in our apples," says Bud. "We have one man who does fertilizing exclusively. He put out 45 tons of fertilizer last year, using a tractor-mounted spreader for efficient spreading around trees. This man watches trees during the season, checks fruit in the fall, and then helps work out a fertilizer program for the following year. The remainder of the crew includes a packing foreman, a storage operator, three men working on spraying, and a four-man packing crew."

Mr. Rogers keeps up-to-date spraying facts and records, and the three men in charge of spraying handle the pesticide program, including mixing and application. Each operator keeps his own set of records of his particular activity.

The Laurel State Growers retain a leading northeastern authority as consultant on pest control. Dr. Philip Garman, formerly with the Connecticut Agricultural Experiment Station, makes periodic visits (every 10 to 14 days during early season) spotting difficulties such as mites, scale, sawfly, locusts, aphids and others, and recommends control measures. In the early spring he works with the nine growers looking over the previous year's records and calculating recommendations.

"We really believe in his services," says Bud. "He can check closely—and with his experience he can size up the situation and utilize modern practices that can save us expensive mistakes. He keeps up with the newer materials, runs his own experiments, and develops new pesticide control methods."

For example, from one experiment came Dr. Garman's recommendation to dust the base of trees with Sevin insecticide to help curb the



Harold Rogers loads apples into one of his fresh fruit vending machines.

population of the periodical cicada (17 year locust) when the pest emerged. He also recommended pumping the insecticide mixture into the ground, where the cicadas are holed up for 17 years of development, to help halt the insects' feeding on tiny, tender tree roots during their years underground.

"We used over a ton and a half of Sevin 50 percent wettable underground in 1959 and 1960. Using especially-adapted guns, we pumped into the earth at three foot intervals about 60 gallons of pesticide solution per tree. By this practice we cut the population effectively, and undoubtedly saved a number of our trees which were most heavily infested with this pest. During cicada emergence in the spring of 1962, the marked difference between sprayed and unsprayed areas showed the effectiveness of this procedure," Bud Rogers explained.

Spray Program

The Rogers Orchard pest control program includes 14 sprays on apples and 8 to 9 on peaches and pears, including applications scheduled during delayed dormancy (using oils on occasion) and a scab program in the late delayed-dormant stage. They use glyodin fungicide plus ferbam (for rust control) and glyodin and sulfur (for mildew) in early pre-pink stage. Bud Rogers says he likes glyodin for its spreading and adhesive qualities, but he uses it primarily as a protectant and to help reduce visible residues during late season. "We need to avoid problems, and produce quality fruit," he explains. "We used Sevin at 1½ pounds per 100 gallons of water 14 days

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after petal fall for effective thinning. On Red Delicious and Romees we applied a pound to a pound and a half 18 to 20 days after petal fall."

For grass and weed control they use Amizine, Amitrol-T, and simazine with a low-pressure rig, applying a four foot circle around each apple tree. They use 7 pounds per 100 gallons at eight trees per gallon when applications are made before bloom.

The orchards contain mostly standard trees, but there are also about 1,000 semi-dwarf apples. Interplanting acreage helps produce fruit more efficiently and economically. The need for economy is emphasized by intensive cultivation, high costs, and the land tax squeeze.

The retail salesroom accounts for

about 30 percent of their dollar volume, and planting has been adapted to it in such a way that there is a sequence of varieties of apples, peaches, pears, plums and nectarines ripening throughout the harvest season, including 15 varieties of apples, 22 of peaches, 5 of pears, 12 of plums, and 5 of nectarines.

For more effective pollination, 55 hives of bees are rented; some varieties need cross-pollination. Also used are some commercially-prepared inserts of pollen with automatic feeding devices that drop pollen on landing boards, where the bees pick it up and cross-pollinate the trees.

Efficient cooperative marketing, modern production practices, and the use of the most up-to-date materials combine to make Rogers Orchard a solid unit of the Laurel State Association, which is striving to produce

and market a better quality, less expensive product for a more discriminating customer.

Dates to Remember

April 16 Annual Meeting N.Y.S. Guernsey Breeders' Cooperative, Inc., Thruway Motor Inn, Albany, N. Y.

April 18-19 -- First Annual NEPCO Poultry Industry Conference, Marriott Motor Hotel, Philadelphia, Pa.

April 20-26 -- National 4-H Club Conference, Washington, D. C.

April 27-- Little International Livestock Show, Cornell University, Ithaca, N. Y.

April 28-May 1--American Guernsey Cattle Club Annual Meeting at

Arizona State Fair Ground, Phoenix.

May 9 -- 14th Annual New York Beef Cattlemen's Breeding Stock Sale, Caledonia, 7 p.m.

May 9-11 -- Ayrshire Breeders Association National Meeting and Grand National Sale, Brandon, Vermont.

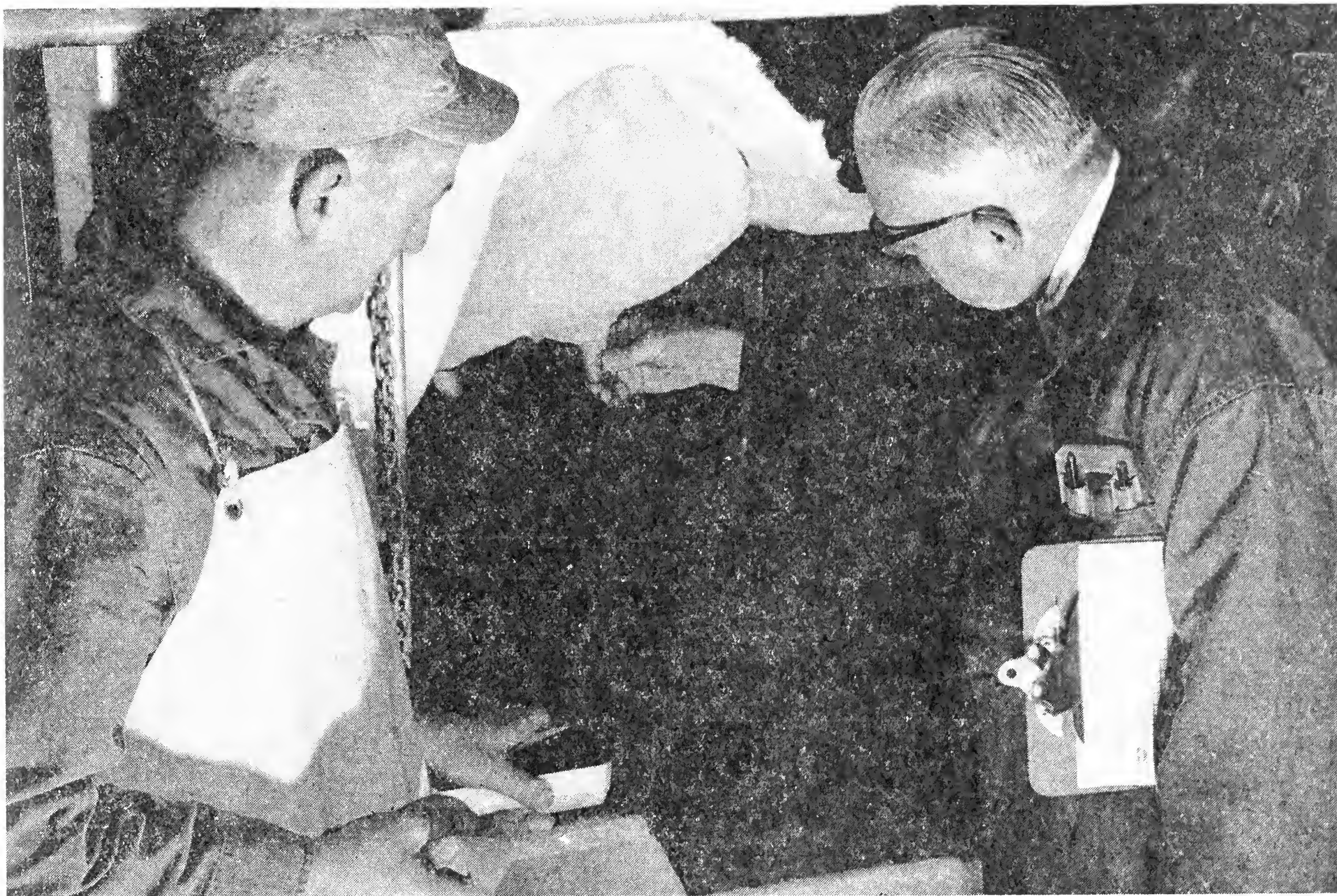
May 10 New York Beef Cattlemen's Breeding Stock Sale, Altamont, 1 p.m.

May 17-18 New York State FFA Convention, Cato-Meridian Central School, Cato, New York.

June 13-15 Sixteenth Annual Delmarva Chicken Festival in Salisbury, Maryland.

July 1 -- First date for filing application Federal Gas Tax Refund for gas used up to June 30, 1963.

July 12-13 -- Maine Broiler Festival, Belfast City Park, Belfast.



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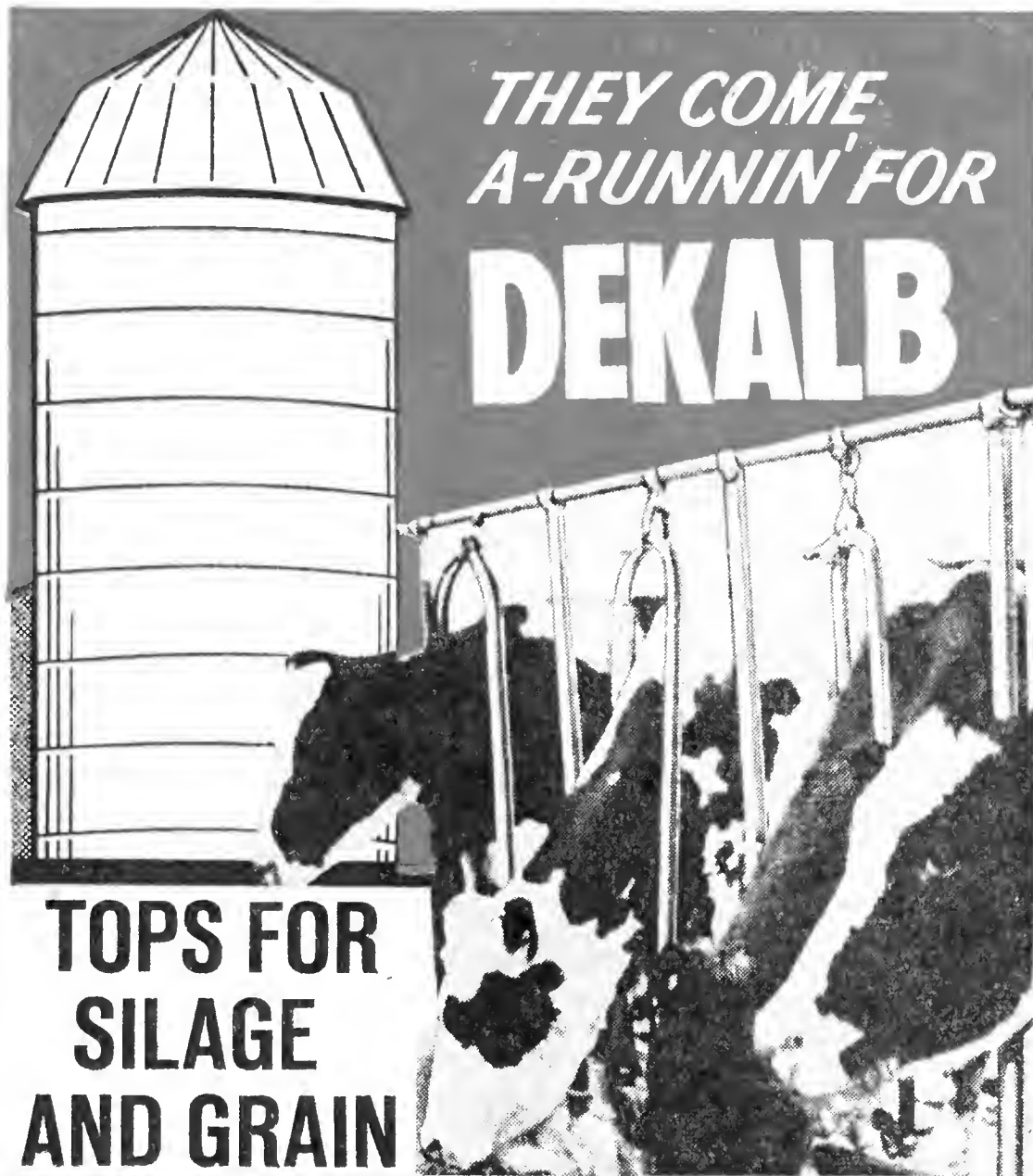
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Harold Tyler, Worcester, N. Y. stands by the gathering tank while the sap comes through the plastic tubing.

Sugarin'— 1963 Style

By Fred E. Winch, Jr.*



A far cry from hauling buckets of sap to a central point. Now the plastic tubing does the work.

IN THE LAST five years rapid changes have taken place in the maple syrup industry. One producer, and a good one, too, has said, "I've had to learn how to make syrup all over again in the last couple of years." Research has pointed out new methods; these in turn brought new equipment developed to use the research findings and, probably more important, a new attitude has been evidenced in the maple business during this time.

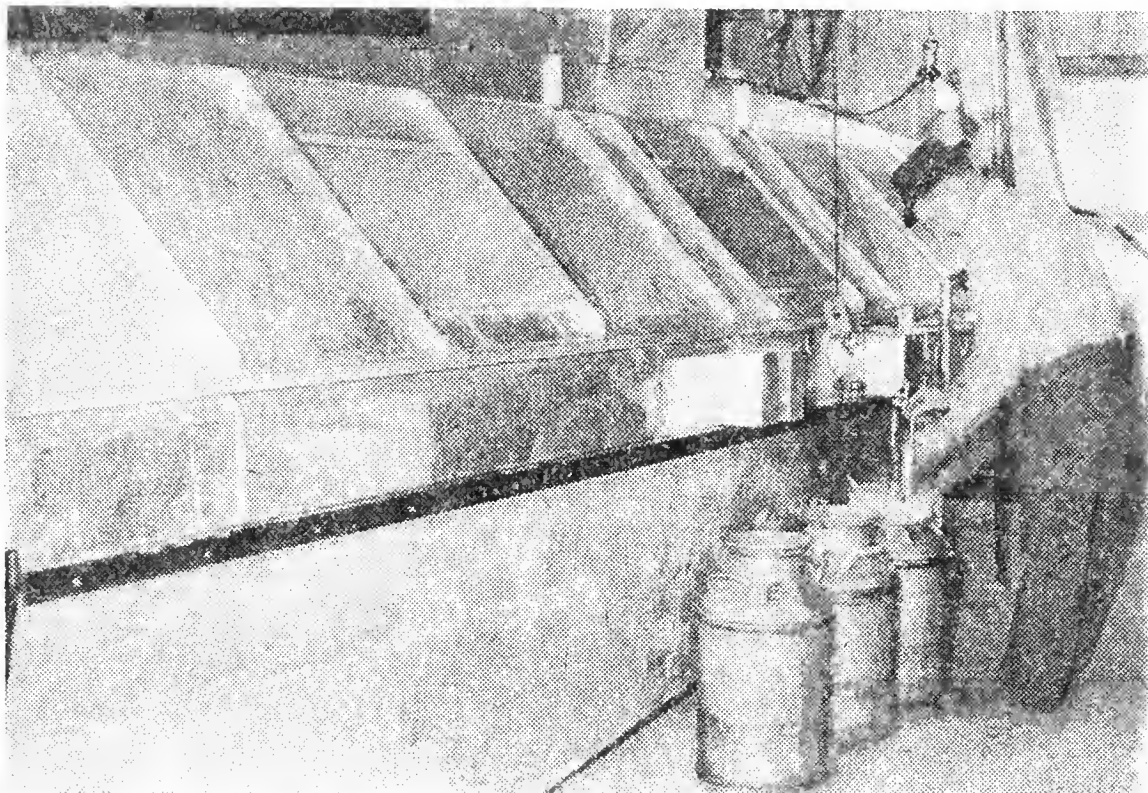
Let's start with research. Early in the maple business it was found that

bacteria had much to do with quality in syrup production. Why not control bacteria with some of the same methods used in other fields?

The first idea tried was to keep the taphole free of bacteria by flushing out with a mild chlorine solution several times a season. This yielded more and better sap. A further step that got results was to use the same solution on other equipment. Further, an ultraviolet light kept bacteria in check in the sap storage—and along the way sap was filtered to keep out foreign material.

Then, in 1962, came a tremendous breakthrough—the development and

(Continued on Opposite Page)



No steamy saphouse now. The covered evaporator makes for much better working conditions.

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(Continued from Opposite Page)

approval by state and federal food control organizations of the para-formaldehyde pellet which controlled bacteria in tapholes. This pellet made it possible, especially in the long season of 1962, to make more and higher-quality sap by cutting down the growth of "bugs" which seal off the taphole.

Equipment has also shown great change, starting with the introduction of plastic sap bags in the early 50's. Plastic bags allow natural ultraviolet light to keep bacteria low.

Plastic tubing has been developed for two different types of installation. One type is to string the tubing in the air between taps using pressure from the tree to force the sap into the tank. A second type drops the sap from the taphole down to the ground level; then the sap is forced into collection tanks by pressure from the tree. Research and practical experience point up the fact that the producer gets better production if he will not depend on tree pressure, but will vent his taphole, grade his lines into collection points, and depend on gravity to move sap.

These two factors—taphole sanitation and the use of tubing—have, in many areas, increased the production of sap by 20 percent or more.

Other Developments

Other developments have stimulated the maple business—pumps to handle sap and syrup, covered evaporators for comfort and sanitation, gas-fired and steam-finishing pans, and evaporators fired with oil. But the greatest innovation has come only lately—it's so simple that one wonders why we have not done it for years. This is the development of a corps of "sap producers" who sell sap to the larger syrup producers. With some of the up-to-date techniques it has not been unusual for the producer of sap to receive \$1,000 to \$1,200 gross for the sap from 1,000 taps delivered to the buyer (renting trees would return \$50 to \$100 for the same taps). Sap thus produced is purchased on a volume-sugar content basis, with 2 percent sugar sap bringing 4 cents per gallon at the buyer's sugarhouse.

This has enabled the producer who has developed good marketing techniques to enlarge his production to the extent that there are now more than 60 individuals producing 1,000 gallons or more of syrup per year in New York State.

Centralized evaporating plants for converting maple sap into syrup are replacing the farm evaporating system in Pennsylvania. Jerome K. Pasto, agricultural economist at Pennsylvania State University says that the demand for quality syrup is considerably greater than the supply; that fewer than 2 percent of the maple trees in the Keystone State are tapped; and that the new system can revitalize the industry. The results of the study are summarized in Bulletin 697, "Economics of the Central Evaporator in Maple Syrup Production," obtainable from the Agricultural Experiment Station, State College, Pennsylvania, or from county agricultural agents.

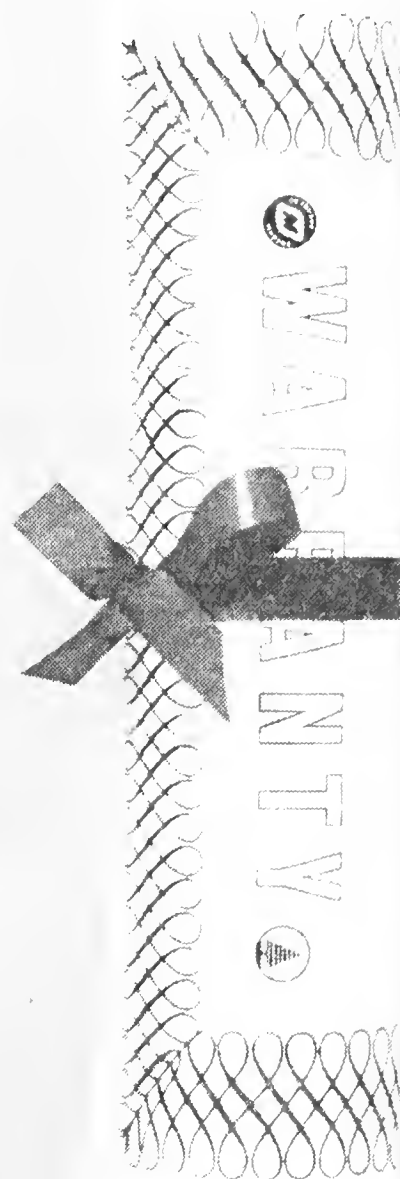
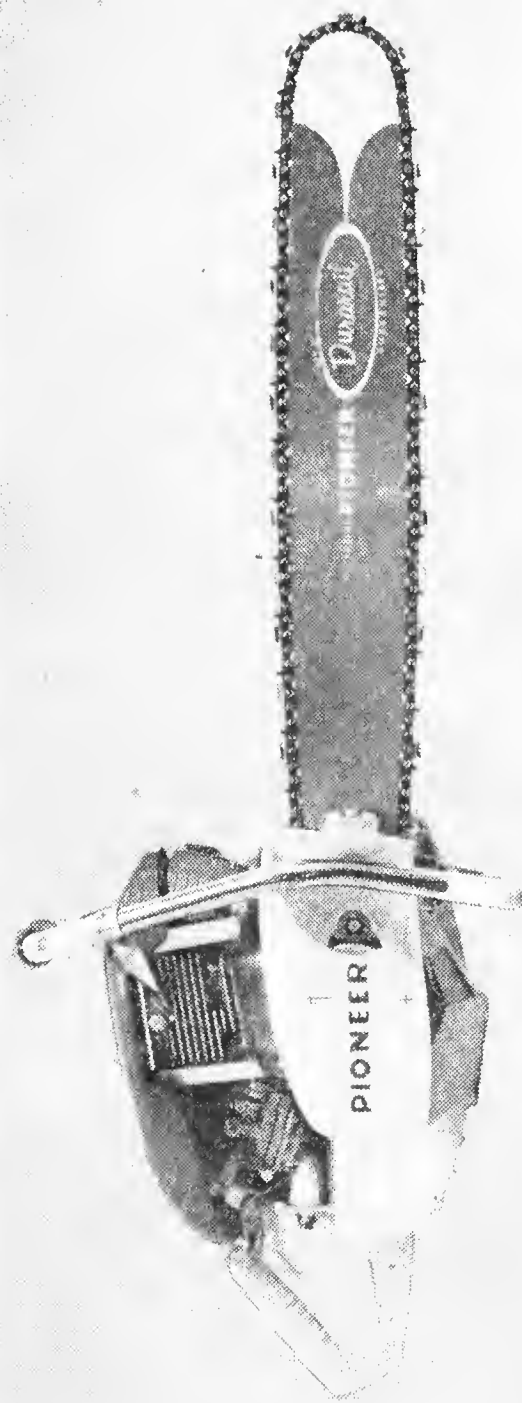
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DEPOSIT, Ralph Barnhart
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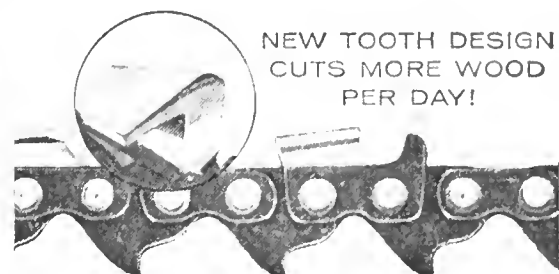
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Changes Everywhere

By AMOS KIRBY

New Jersey Editor of American Agriculturist

THIS is my third annual report on observations of farming in the Southwest, written from Tucson, Arizona.

Great changes are taking place in farming from the dryland country of West Texas to the Imperial Valley of California. The Southwest is fast becoming the cattle-feeding area of the West. The official reports show that there are 28 percent more cattle on feed in Arizona and California than a year ago; in fact, feeders in this area are siphoning off cattle from Fort Worth,

Texas, and midwestern cattle markets that formerly went into Iowa, Nebraska and Illinois. We are told by midwestern farmers that the competition has forced the price of feeders up to a point where it is difficult to show a profit. In fact, some of our big eastern grocery chains are buying the bulk of their beef from cattle-feeding operators in West Texas, New Mexico—and even Colorado.

Less Fat — Among the buyers for the big chains the trend is toward a leaner carcass with less fat.

A description of one mass-feeding operation fits the general pattern. The big Acme Markets of Philadelphia buys the bulk of its meat from one of these commercial operations in the Texas-New Mexico area similar to the one we saw near Tucson. There were 16,000 head of cattle in open pens (as many as 100 head to the pen) with no shelter of any kind. The animals are fed twice a day, a mixture of alfalfa hay and cottonseed meal, plus vitamins and a few mineral ingredients. After about 90 days they are in most instances ready for market, in contrast to the six month normal feeding program in the Midwest.

Cheap Feed — This is a country of cheap feed. Alfalfa hay is delivered at a cost of \$25 to \$27 per ton on

long-term contract. Where it is purchased on the open market the price is up to \$40 to \$42 per ton. There are huge stocks of cottonseed from nearby ranches, and it also sells at a low cost. When one crushes the cottonseed, grinds the alfalfa hay, and mixes the vitamins, the result is a low-cost and highly-concentrated feed.

In California's Imperial Valley there are big acreages of sugar beets which provide low-cost beet pulp and tops for feed; and they are also using surplus carrots for cattle feed. Alvin Gaventa, Swedesboro, New Jersey, whom we met in Tucson, told me that he saw a big field where the carrots were unmarketable being grazed by cattle.

Dairymen Have Problems

Arizona dairymen have problems—actually no different from those of dairymen in Sussex, Salem—or any county in New Jersey.

Arizona milk dealers have a price-cutting problem, and there have been vicious price wars. Right now there is a bill in the Legislature to establish a fair trade code. In talking with producers, dealers, and dairy experts at the agricultural college, I found them hopeful that the fair trade practice code may be a factor in stabilizing the industry. There is no sentiment for price fixing; based on the experience in California, they are steering clear of price control.

Margin — They are aiming to establish a 12 percent markup for the retail store above the invoice price (something which might bear some serious thinking by Eastern dealers); this margin is considered the most important factor in stabilizing the farm price.

Prices — There isn't much difference between prices in Tucson and most localities in New Jersey. The farm price on Class I milk is around \$5.65 per hundredweight; retail prices are around 26 cents per quart—52 cents for half-gallon containers.

Base — Out here they are placing much emphasis on a base for every producer, very similar to the voluntary bases now largely discarded in New Jersey. I was surprised to learn that if one has a base and decides to go out of the milk business, that base is put up for sale to other producers—its value might be \$10 per pound.

Bigger Dairies — The Arizona dairy business shows the same trend as that in the Garden State; there are fewer dairy farms but bigger ones. In recent years the average size has gone from about 42 cows to around 140 head.

Feeding — There is little or no pasture feeding; the weather is too hot for cows to be in the open. Some herds are kept in pens, with shade provided.

Open trench silos are everywhere. I was told at the University that no upright silos have been built in many years; at a cost of \$250 a bulldozer can gouge out a trench that is much cheaper than a stave or concrete silo. Alfalfa from irrigated land is mostly used in the trench silos, with greenchop feeding on the increase.

Water — Out here water is everything. Where water from pumps is available excellent crops are grown, mostly by gravity irrigating. I have seen aluminum pipes here and there, but very few. The water comes from underground sources that are believed to originate in the mountains; it is said that this water flows underground for as far as 400 miles. Land without water may be bought for \$5 to \$10 per acre; land with wells may carry a price tag of \$500 an acre!

ANOTHER CORN SILAGE REPORT



In 1962, a drought year, Randall Brockway, right, and his son Dennis harvested more silage than ever before.

Lime helped a \$3,500 investment yield \$13,000

Although the pioneering Brockway family has owned fertile farmland near Hobart, N. Y. for more than 75 years, last season marked the first time lime has been applied to improve the efficiency of fertilizers used in the corn fields.

Randall Brockway, third member of his family to farm the 200 tillable acres, followed GLF soil test recommendations, using three tons of lime per acre to bring the pH up to 6.8.

Investing about \$3,500 for a complete crop needs package, Mr. Brockway planted 65 acres with six varieties of seed, fertilized with GLF Ferti-Flow high analysis 16-8-8, and sprayed the fields with Atrazine to control crop-damaging weeds.

Results?

Yield was more than 20 tons per acre of high-quality corn silage. The harvest of 1,300 tons was modestly valued at \$10 per ton—choice silage worth \$13,000 for an investment (not including labor) of \$3,500.

And while 1962 was a drought year, Mr. Brockway and his son Dennis harvested more—and better—corn silage than ever before. The farsighted farmers plan to use the GLF Complete Crop Needs Package again this year for top-quality, economical corn silage to feed their 85 Holsteins.

GLF is proud to play a part in the future of

the Brockway farm through the facilities of the GLF Service Agency at Stamford, N. Y., and the on-the-farm assistance of George Tischmacher, GLF sales representative. And GLF is ready to help you. For example:

Now is the time to buy the right fertilizer for your soil to yield best results at harvest time. On a plant food basis GLF Ferti-Flow high analysis fertilizer offers you the benefits of... lower cost trucking charges... reduced labor costs... and requires less storage space. Ask your GLF Service Agency for complete information... today. Cooperative GLF Exchange, Inc., Ithaca, N. Y.



COMPLETE CROP SERVICES

Tillable acres	200
Acres planted for corn silage	65
Fertilizer:	
GLF 16-8-8	500 lbs./acre
manure	12 tons/acre
urea	100 lbs./acre plowed down
GLF Lime	3 tons/acre
Seed (best yielding)	Pennsylvania 215 from GLF
Weed Control	
Atrazine from GLF	2 1/2 lbs./acre
Plant population	23,000

Use Lely Spreaders to apply extra fertilizer for higher yields.

Lime Plus Management

(Continued from Page 8)

In 1953, when Bill bought the farm, his acreage grew enough feed for 35 milkers and young stock. Over the years, he has been carrying a 1:1 ratio of cows to young stock to build up the herd size and as a cash crop. Keeping the number of young stock equal to the number of milkers may seem a bit high to some dairymen; Bill's practice is always to keep enough livestock on hand to handle all short-term obligations. His short-term debt never exceeds the market value of his cattle.

By 1957 he was up to 51 milkers, and an equal number of young stock. With his present 330 crop acres, he figures he can carry 85 milkers with as many young stock. He started growing corn silage again in 1962, and plans 47 acres of it in 1963.

As Russ Hodnett points out, no farmer can expect to get his money back the first year after it's invested in lime. It takes three or four years of high input before it begins to pay off—payback really started on the Walldroff farm in 1961. Because of the fertility level in terms of a good supply of calcium and phosphorus in the soil, the root development was there and Bill got good hay yields even in 1962, a drought year.

Bill credits General Crushed Stone with leadership that has helped credit organizations see the benefits of long-time financing of lime. Credit agencies are not going out to look up farmers to offer them long-time credit; the farmer has to hunt up the credit. With a long-time plan, credit agencies will do long-time business.

Net worth on this farm has doubled in the last seven years. According to Bill, "When you start making changes and spending money, your labor income goes down temporarily. Within a year or two it goes back up. Our labor income is up now about 25 percent over 1956, in spite of lower-priced milk."

Right now Bill is on a system of zero pasture, carrying a lot of greenchop to the cows each summer. As soon as possible, he will do away with greenchop and go entirely into storage handling of his forage, grass silage, hay, and corn silage.

With no great increase of government intervention, he will definitely head for 100 milkers and some more acreage. Bill's ideas on minimum government intervention are pretty well summed up by the fact that he is currently president of the Jefferson County Farm Bureau. While we're mentioning his extracurricular

activities, he's also Master of La-Fargeville Masonic Lodge, and a member of the Orleans Town Board.

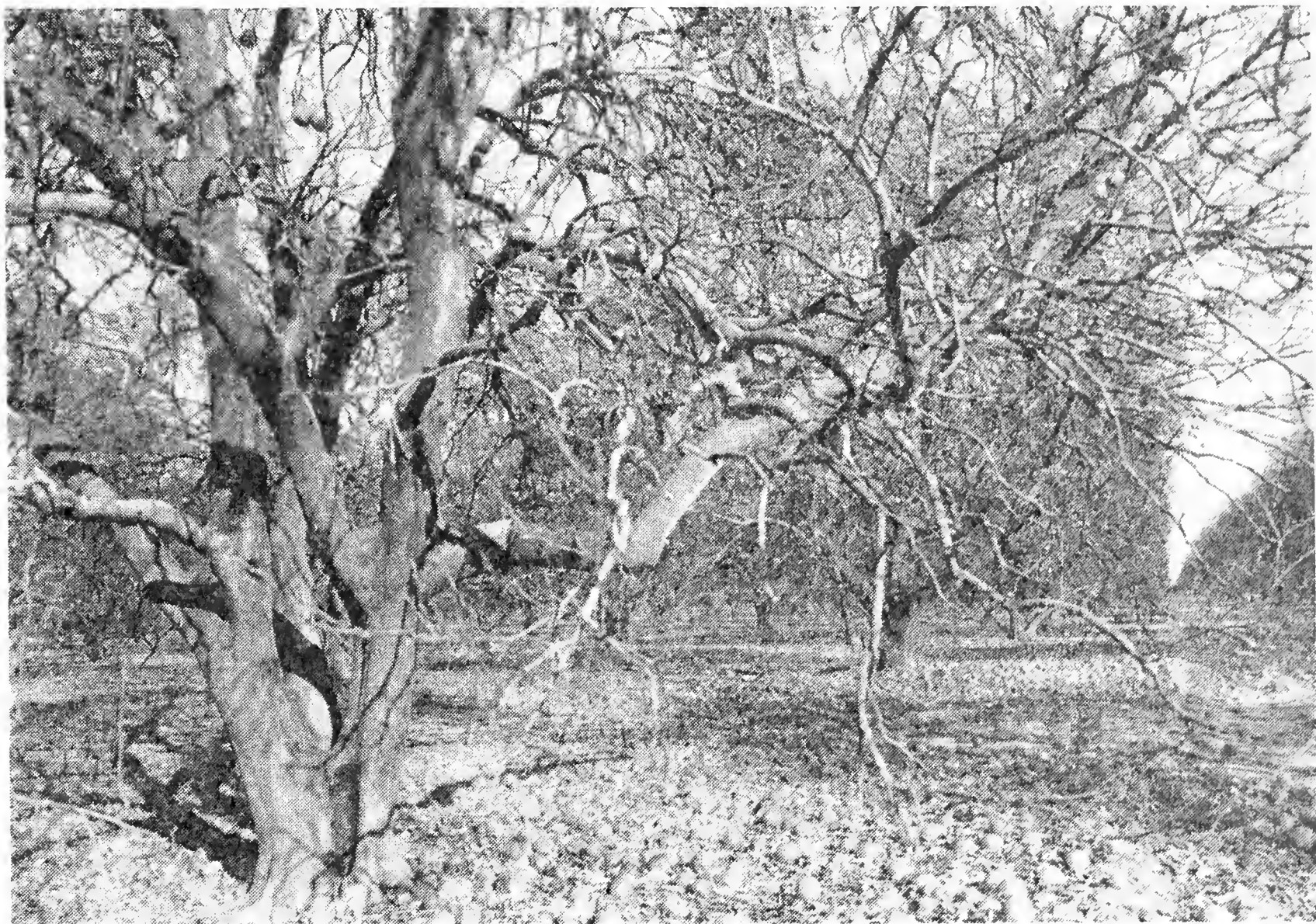
The Walldroffs have six boys and two girls, and Bill hopes that there will be more time for family living in the future. Mrs. Walldroff, although she was not a farm girl, says, "A farm is an ideal place to rear a family. It's an excellent way to teach children to work, and to learn that the world does not owe them a living. Helping out now and in the future will build their characters."

In Bill's opinion, "Young farmers should remember that lime is the first link in a chain. I believe I get \$7 of gain for every dollar spent for lime. I feel there was no risk involved in buying a lot of lime over

the years, and feel now that I should have done more acres over the five year period.

Russ Hodnett and his staff have been a great help to Bill over the years, and he appreciates it. Russ recommends that in both low and high lime areas of the Northeast, dairymen should follow soil test recommendations to maintain a pH of 6.8.

He added, "Bill Walldroff took an honest inventory of what he had to work with, including soils, livestock, and human resources. He was realistic, decided what he was going to need, figured those needs, plugged in the needed inputs, and matched his crop plants to the resources he had. Bill had to manage well—and he did."



This picture taken in Florida on Dec. 18, 1962 tells the story

The "December Freeze" has temporarily affected the supply of FLORIDA CITRUS PULP FEED

Last December's big freeze — worst to hit Florida since 1894 — severely damaged the 1963 citrus crop. This, coupled with severe freeze and drought conditions in many other parts of the country, has resulted in a tight supply situation for Florida Citrus Pulp Feed.

We assure our many friends in the dairy and livestock industry that this is only a *temporary* situation, and that every effort is being made to insure maximum continuity of supply. This year, as always, Florida Citrus Pulp remains your best buy in high nutrition feed.

BANKER VIEWPOINT

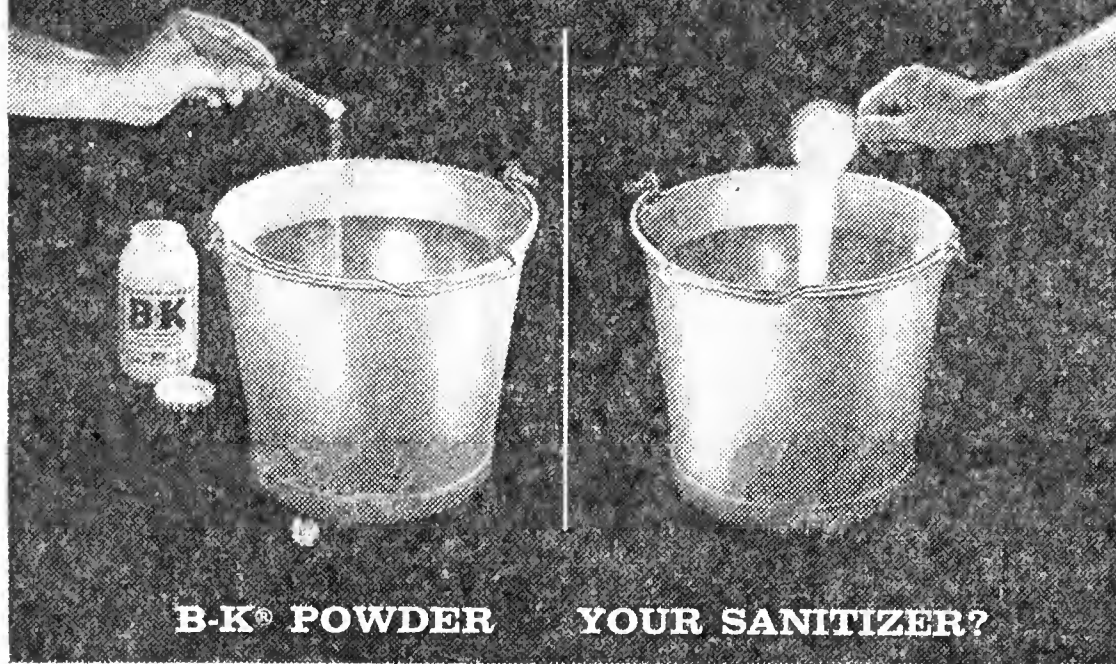
All progressive agriculture bankers in the State of New York have been sold on the use of lime to increase production and the value of New York State land. In reviewing the results of the tests made on the William Walldroff farm in La-Fargeville, I am more convinced than ever that this type of program should be continued by the good progressive farmer in the State.

Many of us in the banking field have come to realize that the results of liming will take several years to show. For this reason, many of us feel that the financing of lime should be treated as a capital-type loan, and be repaid over a two to four year repayment schedule, as in the purchase of equipment, etc.

Speaking from a personal standpoint, my own bank (Lincoln Rochester Trust Company) has worked very closely with many farmers who are using lime and has an excellent relationship with the firms that sell and spread lime commercially. — Robert T. Hayden, Chairman of the Agriculture Committee of the New York State Bankers Association



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How Do We Get 'em Through...

(Continued from Page 1)

Perhaps the most startling thing that is being done is to substitute ground shelled corn for hay, something at which most dairymen once would have blanched in horror. Professor Bruce Stone of Cornell has a thumb rule that one pound of corn replaces two pounds of hay in terms of net energy. He recommends, though, that the hay throttle not be closed down below ½ pound of hay or hay equivalent per cow per day for every 100 pounds of body weight.

Less than this discourages the rumen from ruminating and upsets the innards in general. Several county agents reported knowing of farmers who have been feeding this minimum level all winter. Corn should, of course, be ground for most efficient use—a medium-fine grind is preferred to either a fine or coarse grind.

Other Hay Substitutes

Most feed companies have developed a bulky grain mix specifically designed to replace hay. Here again, most recommendations require a minimum amount of hay feed along with such rations. One county agent in Vermont is recommending a hay-replacer ration consisting of 1,200 pounds of hominy, 1,000 of bran, 200 of molasses, and 200 of soybean oil meal.

Citrus pulp has been used heavily for feeding, with only a temporary shortage as a result of the Florida freeze. Extra beet pulp and molasses are being fed too, but the price has moved steadily upward as the feeding season progressed.

Ground corn has "enjoyed" a pretty poor reputation across the years: many farmers believed it caused "caked" udders and even mastitis. But necessity is the mother of invention—and the father of rapid change. An almost empty haymow, \$50 a ton hay, and relatively cheap government corn (\$36.50 a ton plus local handling charges) in counties designated "disaster areas" all combined to make corn a pretty acceptable substitute. Of course, everyone agrees that no dairyman should suddenly start feeding a lot of ground corn, but work up over a period of several days to the level desired.

Ed Deiffenbach, county agent in Susquehanna County, Pennsylvania, and agent Bill Worth of Chenango County, New York, both report that dairymen in their counties are using government corn heavily. Byram Leonard of the New York State ASC office reported that about 600 carloads of CCC corn had been sent into the State up to the beginning of March.

Pennsylvania has 55 "drought disaster counties" and New York 24; farmers in these counties are eligible to buy corn at below market prices from Commodity Credit Corporation stocks. The maximum that can be purchased is calculated on the basis of 10 pounds per cow per day; payment for it is strictly cash on the barrelhead—in advance of delivery. New Jersey and the New England states are not involved in the program.

Working Well

Apparently, this corn is working out very well. No reports were heard of problems with the high corn-low hay program, even though some farmers have been using it since last fall.

Speaking of last fall, everyone agreed that the man who did some

planning then is now way ahead of the game. Professor C. A. Bratton of Cornell comments, "Those who sized up their situation last fall, knew where they stood, and made long-range plans, are in pretty good shape." He added, "The drought showed up very sharply the difference between good and poor forage management programs. In dry areas, all yields were down, but the man with a top-notch program suffered least."

There seemed to be general agreement from all directions that farmers can feed heavy on silage and short on hay. Although there were dissenters among those contacted, many stated that they wouldn't hesitate to feed silage (corn or grass) as the only roughage. Several instances were reported of dairymen who have been doing this and getting good production as long as they maintained adequate protein in the overall ration, and made sure that calcium and phosphorous intake was adequate. Of course, any major shift in feeding should be done gradually, instead of waiting until the last bale of hay is gone before switching to all silage.

Roughing Heifers

Whatever you're feeding, most experts agree that heifers can be treated pretty rough for 6 to 8 weeks at the tail end of the feeding season without hurting them permanently. In general, they recommend not letting them lose weight, but they can stand poor quality roughage along with a little grain. A county agent reported one farmer feeding his heifers straw and grain.

Some of those contacted advised breeding heifers a month or two later than normal if lower feeding levels have restricted their weight gain when they reach the usual breeding age. This would depend, however, on whether there were market incentives to maintain certain levels of production in particular months.

It's even more important this spring to avoid overfeeding the dry cows and "tailenders"—those finishing their lactations. Also, it makes sense to cull heavily; it's better to take a low price on a cull than to short-feed the really good cows. Of course, some dairymen are keeping every udder they have in the barn, thinking that 1963 may turn out to be the base year for production quotas. Legislative experts say that this is unlikely, though.

Looking ahead to late spring and early summer, what are the possibilities for getting forage quickly? Walt Griffith, agronomy specialist at Cornell, says that some farmers will be able to graze winter wheat and rye. "This is a common practice," he reports, "in the Middle West."

Grazing Grains

He cautions that dairymen should be careful to graze only when fields won't be "punched" by the cows' hooves—a definite limitation during a wet spring. He also reminds farmers to graze rye hard because it can easily get away from the cows and grow so fast it will be unpalatable. "Dick" Dodge, at the University of Vermont, says that the Vermont Milk Flavor Improvement Program prevents them from recommending the pasturing of rye, though, because of danger from off-flavor milk.

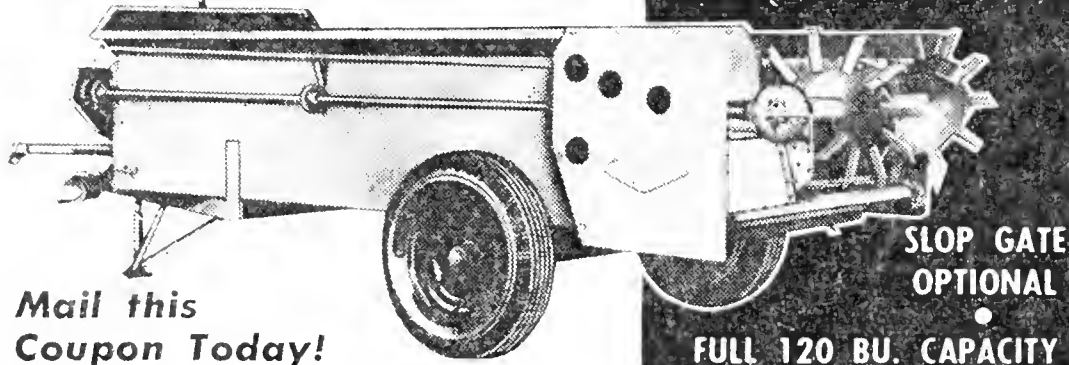
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(Continued from Opposite Page)

Jim Eakin of Penn State joins with Walt in warning of the danger of grazing wheat too late. If the growing tip—what later becomes the head—is grazed off, the plant will never develop a head. However, if wheat is topdressed in very early spring with 50 pounds of nitrogen, and if grazing is stopped at the beginning of the joint stage, grain yields should not be affected. In Pennsylvania, this means a possible grazing period from mid-April to early May.

A timetable of roughages available from now on might go: Pasturing fall grains, grazing meadows or permanent pastures on which nitrogen had been applied earlier, then to regular hay land, spring planted oats, sudan grass, sudan-sorghum crosses (such as Sudax), and finally to row corn. Hay, of course, will be available for summer feeding as soon as the baler begins to roll.

Nitrogen On Grass

All the agronomists recommended hitting grass with 50-60 pounds of nitrogen per acre for early pasturing, or for top yields of grass silage and hay. Depending on the season, a dairyman can get a ten day to two week jump on the season this way. And remember that filling the forage pipeline next summer calls for topdressing hay fields (preferably on the basis of soil tests) with nitrogen, "complete goods" like 10-10-10, or "O goods" such as 0-20-20.

Dan Hurl, agent for Essex County, Massachusetts, sounds a chill note by reporting that hay land in his area has been under sheet ice most of the winter. This usually means severe winter killing and farmers there are asking about making frost seedings on these fields.

Dan also comments that he has sometimes recommended topdressing alfalfa fields early with up to 20 pounds of nitrogen from complete fertilizers such as 5-10-10. He says it gets alfalfa off to a good start and doesn't necessarily stimulate grass to the detriment of the legume. Not all agronomists—or county agents—are in agreement on this point. Some argue that nitrogen should be applied on legumes only where the legumes are about "run out."

Some farmers remember that cutting hay late brings maximum tonnage, but neither agents nor agronomists believe they will forget the advantages of early hay harvest. The weather in 1962 made it possible to cut most hay early; the resulting top quality hay—and the milk it produced—converted many dairymen into fervent believers that the first cutting should be finished by the Fourth of July. Agronomists also hope that farmers will remember that top TDN per acre comes from corn silage containing well dent corn kernels, rather than those Sloppy Joe sandwiches of 80 percent moisture corn with ears in the milk stage.

Push Corn Silage

Corn for silage, with its high potential yield of TDN, is being recommended far and wide as a way to get the "Forage Express" rolling again. Because most every silo in the Northeast will be empty by pasture time, farmers will be growing even more corn, sudan grass, and sorghum than usual.

Grass silage will go in early to replace corn silage normally carried

over on some farms for summer feeding. Some farmers will put on nitrogen early, take off hay crop silage, then plow the field and plant silage corn. Don't forget that corn is a bearcat for consuming plant nutrients if it is to reach its full possibility in yield.

Oats will be slated for use as a roughage, either as silage or hay, to a greater extent than usual. Farmers who have tried it either swear by oat silage or at it, the latter because "they are at just the right stage for silage for only a half hour on Sunday morning." They do indeed pass through the best ensiling stage pretty fast, but there is more leeway for baling them into hay—something being done on more than a few farms in the Northeast. Agronomists comment that taking oats off early

gives new seedings a boost, so much so that it is not uncommon to harvest some hay from a newly seeded field that same fall.

Feeding Changes

Summing up, it looks as though some long range changes may be taking place in dairy cattle feeding in the Northeast. Higher grain feeding levels have been forced by circumstances and dairymen have gotten used to the idea that there aren't the physical problems involved they once thought. As Ernie Cole, county agent in Tompkins County, New York, says, "Farmers have found out how high they can go on grain. Overall, it's a good thing, although some of them went too high for top profit."

Assuming this year will bring

more rain than in 1962, top quality roughage will regain much of its former emphasis, but probably accompanied in the future by more grain than in the past. For many dairymen, the bugaboo of ground corn being detrimental to dairy cows has been laid to rest. Farmers are more aware than ever of the cost of various feeds per pound of net energy. These costs relative to each other are constantly changing, of course.

Fertilizer and lime remain as "best buys" compared to most other production items. Lime won't help much the year it's applied, but it is as important to the long haul as ever! It is possible to stir up forages with fertilizer, especially with nitrogen—this is the year to do it.

And may there be an early spring!

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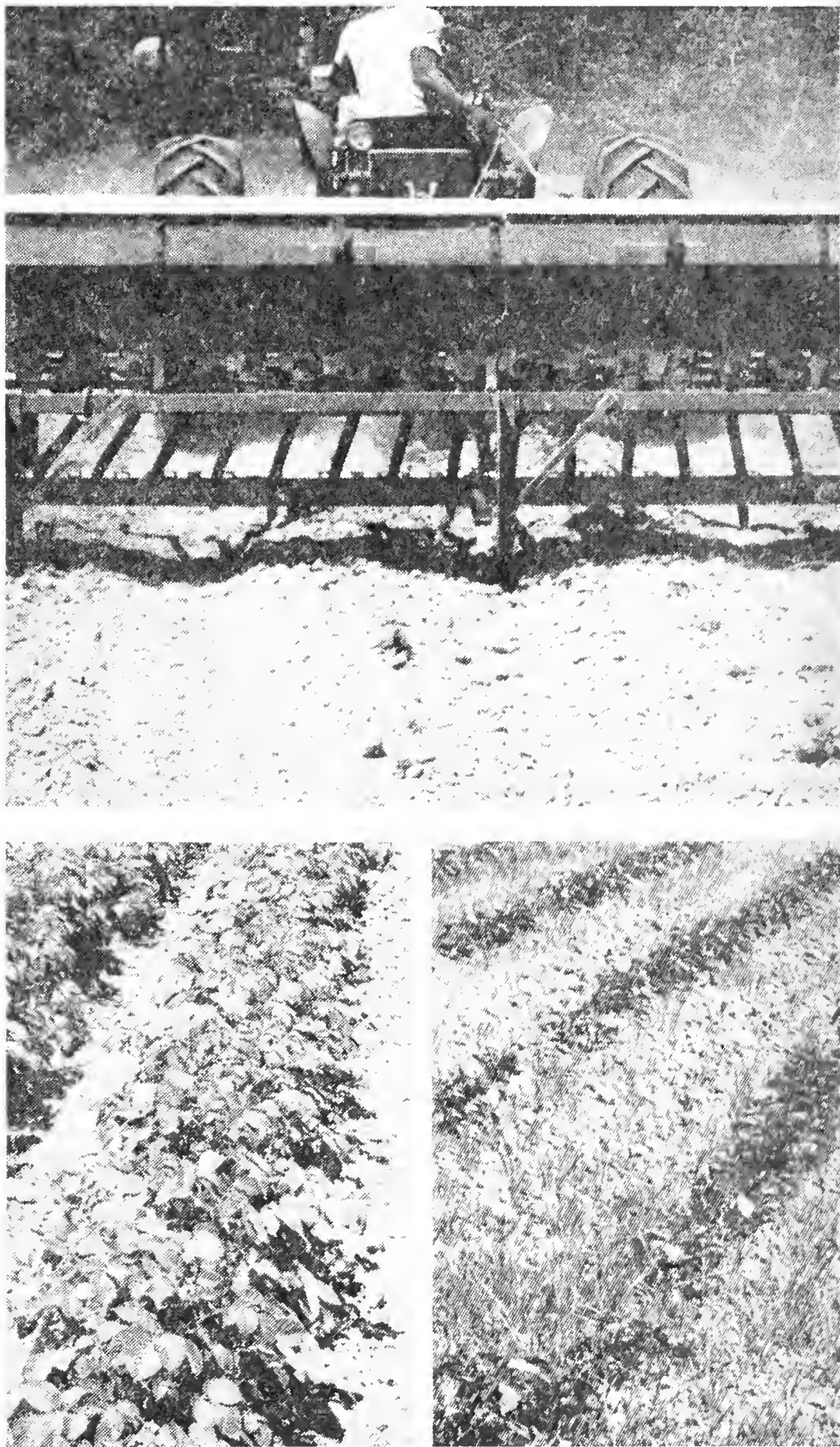
crop—with much less labor and a great decrease in cutting and bruising of tubers at harvest.

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Gayway Farm Notes

By HAROLD HAWLEY



Don't Sit this One Out!

EVERY now and again we get all steamed up about an issue, tear around trying to do something about it, and after the fuss is all over we wonder if we shouldn't have "sat that one out."

The upcoming referendum on wheat is not just another issue; it concerns all wheat growers and many, many others. The decision made by American farmers on this one will likely determine the relationship between government and agriculture for a long time to come.

If we decide in favor of acreage control and the wheat certification plan, it seems fair to assume that we will be under some kind of a government wheat program from now on. We will continue the unjustifiable spectacle of having government decide who can grow wheat. Presumably we will continue to have wheat grown where it never was grown until support prices got high enough to guarantee a profit to almost anyone regardless of his efficiency or cost of production. It's a commentary on the unjustness of this program to say that in Cayuga County we now have more than twice as many wheat growers as before the program started. The acreage for these new growers — exemption or allotment—had to come from someone who had a quota. Thus we have ended up with the people who are best able to produce wheat—and to produce it most cheaply—being restricted most.

Dollar Wheat

Some time between mid-April and June the Secretary of Agriculture will announce the date of the wheat referendum. In the meantime, we are being told that to vote no on the referendum would mean "dollar wheat." This is an absolute falsehood; the support rate will be about \$1.25 (50% of parity).

There is no surplus of the soft white winter wheat which is produced here in the Northeast. The expected decline in planted acreage, with the removal of support prices, should assure a fairly good price for our production. The chance to get out from under government controls, which have pretty thoroughly failed to control U.S. wheat production, is something I have looked forward to for a long time. The absurdity of high support prices on wheat (or on any other commodity) which price us out of the world market, and pretty well out of the domestic feed market, has been well demonstrated. A costly program assigning quotas to every farm, policing and measuring every wheat field in America, keeping records on every farm's crops, and storing huge quantities of grain owned by the government could appeal only to a pay-roller—or to someone who believes that a central authority can do a

better job of directing our productive efforts than a free competitive market.

We have everything to gain by voting NO in the upcoming referendum. With so much at stake every eligible voter should certainly register his opposition to continued government domination of American agriculture. Let's not sit this one out! Let's vote "No"!

FEEDING HEIFERS

Never has it been necessary to feed heifers running in the corn fields except occasionally after a particularly heavy fall of snow. But this winter was different — we fed them most of what they got for two to three months! Twenty head had no shelter except woods and a steep railroad fill for a windbreak. They came through fine, but the saving on feed was small compared to normal.

Last year when it was tough to give hay away we fed very little—less than 250 pounds per heifer. This year, when buyers were at the place continually offering unheard of prices for hay, the snow held on for week after week and we fed hay we would otherwise have sold. I guess the old hay in the bottom of a lot of mows was long overdue to be cleaned out anyway.

We finally solved one persistent problem. Whenever we sell hay (string bales) there are a few broken bales. This year we put on the drive floor one of the racks with sides that we use with the baler between two mows of hay we sold. It was pretty slick to roll the loose hay into this box, and then haul it home for feeding. It sure beat that most unpleasant job of cleaning up the loose stuff.

If one can believe what he hears about conditions across the State—"never did so many farmers pile so much manure for so long." The snow accumulation here was less than in many areas, and by dint of putting a crawler and blade ahead of a regular tractor we got it out every day. For the first time, though, I fully agreed with the Cornell professor who keeps insisting that all too often it costs at least as much to spread it as it is worth.

OATS

Last year, for the first time in years, we rolled fields after sowing oats, to make it possible to go down after lodged grain if it became necessary. Never have I seen the weeds come up so fast. The mild, dry, open winter had left corn still unrotted and ungerminated, and it volunteered. The 2,4-D which has always been pretty effective in controlling weeds in oats just didn't get the job done. I assume it was just so dry that the weeds weren't growing fast enough to be readily killed. Anyway,

all in all we had weeds and corn in our oats. On top of that the germination, growth, and ripening of the oats was uneven so it wasn't surprising that we had some heating of our grain.

This year we'll just skip the rolling, which will help to get the oats up and doing well ahead of the weeds. By combining back and forth the same way we drill, the little ridges won't be too bumpy; I think we can smooth these drill marks a little by dragging a heavy chain or two behind the drill. The smoother we can get the land without rolling, the safer it will be to pick up down grain.

Next step will be to use the 2,4-D as early as possible while damage to oats is at a minimum and weeds are most susceptible.

SEEDINGS

For the first time we passed one field without putting a hay seeding in it. With more fertilizer on hay fields, we can do with 15 to 20 acres less hay each year. Consequently, we put mammoth red clover in the wheat for fall pasture, and a green manure crop to plow down the next spring; we will follow this with a crop of corn. This is a real departure for us, as hay has always been a part of the rotation.

MILK STANDARDIZATION

There is a lot of disagreement on this one yet, but it seems clear from where I sit that it is only good common sense to sell the consumer what she wants. This appears to be a low fat milk—at least for a part of the trade. Protein is what we have to sell, anyway, so I hope we can get legislation to legalize the sale of, say, 2 percent milk. New York and New Jersey are the only two states in the nation where standardization is illegal. Sometimes seems as though we stand in our own way, doesn't it?

Naturally, standardization would involve market order revisions, and it would be hoped that pricing would be done so as not to be an incentive for producing additional butterfat which is already in oversupply.

It's not so long that the hog producers have been undergoing a real revision in their notions of what kind of a hog to market. I well recall the chaos in the lard market prior to World War II; lard was such a drug on the market that its low value was dragging down the price of the whole hog. The wide-awake hog men soon started breeding toward a meat-type hog which not only had a lower percentage of fat but which "finished out" at a lower weight (180-220 pounds instead of 220-280 pounds). This gave the consumer a small ham or loin, more to his needs and taste. Despite ups and downs, I think it is universally agreed that the hog producers have been far better off since they made the change.

I suppose it's suicide even to say this, but I am disappointed that some of our breed associations haven't taken the lead in urging the production of lower fat milk. But no—every ad one reads stresses the amount of fat she gave rather than how much milk! NYABC has a real opportunity here if they would quit stressing bulls transmitting high butterfat production and talk about bulls from dams with 20,000 to 25,000 pounds of milk! **It's the milk we ship, not the fat that's in it, which determines how much money we make from dairying.**

All right, so now I'll head for the hills!

Spring Seeding Suggestions

By Walter L. Griffith*

A LEGUME-GRASS new seeding should have at least eight to ten vigorous legume plants and an equal number of grass plants on every square foot of the field—more than 700,000 plants per acre. On a ten acre field this calls for over 7,000,000 "success stories."

Good seeding establishment requires conditions favorable for rapid



W. L. GRIFFETH

germination and growth of the legumes and grasses. Top quality seed is the first essential, then adequate water, the right soil conditions and nutrient supply, and finally enough light. Each seed

dies—or lives and grows into a productive plant—according to conditions immediately surrounding it.

Some recent developments that help to provide favorable growing conditions include: soil firming after planting to improve soil moisture relationships; band placement of fertilizer to supply phosphorus to the young seedlings; and controlling competition by weed control and grain crop management.

Firm the Soil

Firming the soil with press wheels or a cultipacker after planting has given better alfalfa stands on sandy loam and silt loam soils in many research locations in the Northeast and Midwest. The results of 17 experiments in which alfalfa was band-seeded with a grain drill shows the advantage of soil-firming after seeding. (See table above right).

We had similar results in a summer alfalfa seeding planted in August 1961 following peas near Geneva, New York. Cultipacking, or firming with the press wheels after band-seeding, increased the 1962 hay yield one-half to three-fourths ton over no soil firming. However, firming after seeding is not always favorable—with spring seedings on heavy soils cultipacking after seeding has resulted in crusting and poorer seedling emergence than with no firming.

Band the Fertilizer

Drilling a fertilizer high in phosphorus is important for rapid seedling growth on most soils. This is illustrated in the results of a Cornell study where band-seeded alfalfa produced double the hay in the first crop year when fertilized at seeding time with 200 pounds of 0-20-20. In New York the current fertilizer recommendation for seeding without a companion crop would be 300 pounds of 0-20-20 on most soils.

In tests at Ithaca, New York, where no fertilizer was applied at planting time and the seed placed in bands, the yield of first year hay was 1.7 tons per acre; where 200 pounds of 0-20-20 was broadcast—and the seed also broadcast—the yield increased to 2.6 tons; and when 200 pounds of 0-20-20 was drilled in (banded) and the seed also placed in bands the yield rose to 3.4 tons per acre.

Spring seeding without a grain crop on a well-prepared seedbed at oat planting time in 1963 should produce one or two good hay crops this season, if weeds are controlled. The new herbicide 4(2,4-DB) applied at 1½ pounds per acre has given excellent control of most broadleaved weeds in spring seedlings made without a small grain crop.

For seeding in oats or other grain crops, either 4(2,4-DB) or one of the Dinitro herbicides (Dow Premerge or Sinox P.E.) will give good weed

control if used properly when the weeds are seedlings. If 2,4-D or MCP Amine are used the application must be delayed until the forage plants are protected by a complete canopy of weeds and small grain.

If the grain crop is harvested for grain, mowing the stubble will help set back summer weeds. Clipping should be completed by late August to allow time for fall growth.

Grain crop competition with the forage seedlings can be reduced by pasturing each time the grain crop reaches 6 to 8 inches in height. Remove the livestock from the field, though, before they damage the forage seeding. Oats will make medium-quality hay or silage if harvested no later than the dough stage. Early harvest of the grain crop for forage reduces competition with seedlings.

Effect of Soil-Firming

Firming after seeding	Percent Stand	
	7 Spring seedings	10 Summer seedings
Press wheels	100	100
Cultipacker	99	88
None	78	55

Source: M. B. Tesar, Michigan State University

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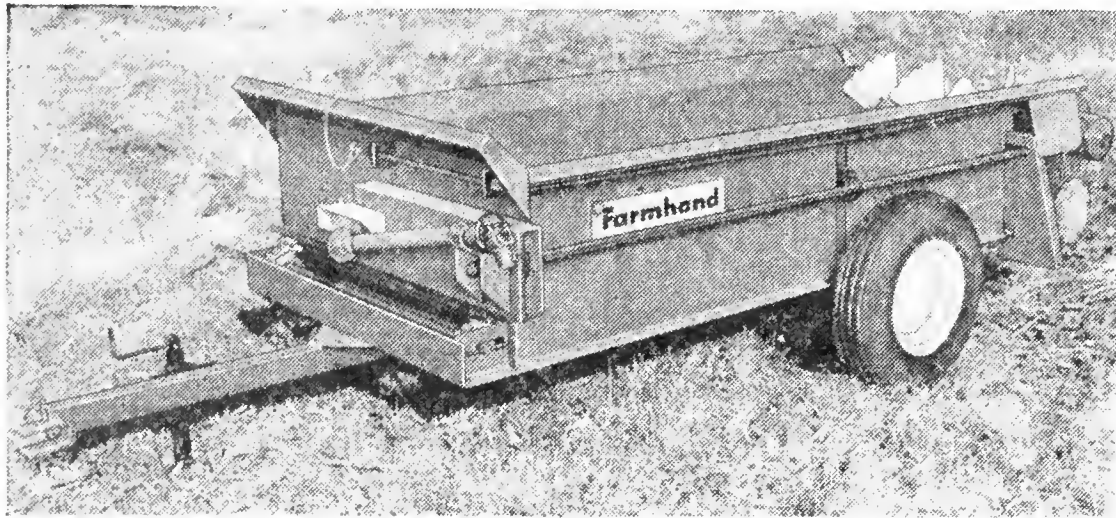
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Bargaining Guide for MILK

By GLENN LAKE*

RECENTLY we have seen a good deal of publicity given to the National Farmers Organization, which is aspiring to farm leadership by promoting a national withholding action or strike to increase livestock and milk prices. Their slogan is "Solve Your Own Problem with Collective Bargaining."

The slogan is not new—it has been done for years by cooperatives. Most farmers would endorse the idea of solving their own problems and strengthening their bargaining position — but a farm organization without know-how and organized on the sole theory of striking to improve farm prices is futile. More-



GLENN LAKE

over, to withhold milk from a given market without facilities by which farmers can process it themselves is economic suicide. Any hope to attain success, even for a temporary period, without complete organization, is nonsense. History and judgment dictate that the methods being used by this organization will result in failure.

The words "milk strike" are repugnant to most farmers, creating an image of dumping milk, violence, destruction, and ill will between neighbors and families. Even the term "collective bargaining" is received with distaste as a somewhat unethical business practice often implying coercion and extremist demands.

Collective Bargaining

Perhaps that is why, after nearly 50 years, the rights of farmers to bargain collectively remain beclouded and largely untested. Cooperatives have been reluctant to use this potent economic weapon, either because they feel they are not prepared for effective action, or on the grounds that the consequences may be worse than the ills that can be corrected by forceful bargaining.

The business climate the dairy farmer and his cooperative find themselves in today, however, is forcing us to take a new look at aggressive bargaining as a means of bettering farm prices. Mergers and consolidation in the dairy business are placing a terrific concentration of power in the hands of fewer and fewer buyers of milk. The pressures of chain store and supermarket selling, entailing as this marketing system often does a captive or near-captive dairy, are becoming more troublesome to farmers.

Unless we attain the size and the resources required to deal with these pressures, our voice in the pricing of the products we have to sell will be further diminished. Farmers will be shackled to a position of division and weakness and a "take what you get and like it" pricing structure.

The trends toward bigness can certainly be expected to continue in the

years ahead, to the point that the only thing standing between the farmer and nearly complete domination of his market by others will be the bulwark of cooperative action. Government programs may provide some help, but a realistic appraisal of government action on developing new farm programs to meet the future makes this source of assistance a questionable possibility. While several programs are necessary and even urgent, history has shown us that if we place too much hope on government action to solve our problems, we are going to be disappointed.

In short, it is becoming increasingly evident that if farmers' and their organizations want material improvement, the most productive course of action is to increase and utilize our bargaining power.

Unfortunately there has been too much talking and not enough doing in this field for too long. We as farmers have apparently not yet learned the hard lesson that many of our troubles are caused by our own reluctance or inability to work together in organizations as we should, and an unwillingness to use the tools that are available to us.

Need "Muscle"

To be sure, bargaining strength means more than just tough talk. To a certain extent, of course, talk and persuasion are involved, but to have persuasive power there must be the ability and willingness to exert applied economic pressure on the buyer. There must be some "muscle"—in the form of control of the supply or product—and strong, enthusiastic membership support. When these exist, the cooperative can divert milk to an alternative market, process it into products at its own facilities, or lease facilities to process it.

This method of bringing pressure to bear has proven eminently successful where it has been used, and where demands have been reasonable. You cannot throw caution and common sense to the winds. You can fix a price on your product—but you cannot force anyone to buy it.

A long time ago we learned in Michigan that the local market concept and the local organization approach was not adequate. The dealers who buy our milk played one group of producers and one market against the other. Because this was the case, we began working to build the Michigan Milk Producers Association into a statewide organization.

We learned, too, that we must have control of the milk supply. Currently we have more than 12,000 members who produced 85 percent of all the Grade A milk produced in Michigan in 1961—just over 2.75 billion pounds.

While our entire membership and their milk markets are currently covered by four Federal Orders, we have bargained premiums over the minimum of the Order in all areas. Bargaining is done on virtually a statewide basis by a committee of dairy farmers representing Michigan

Continued on Opposite Page

* President National Milk Producers Federation and Michigan Milk Producers Association

(Continued from Opposite Page)

Milk Producers Association and five other cooperatives. Each dealer represents himself.

During the years that we have had negotiated Class I premiums, they have yielded more than 75 million dollars to our members. In addition, we have over the years secured several million dollars because we are in a position to handle surplus milk rather than sell it at the buyers' offered price.

Tools Needed

At this point I should like to emphasize the importance of plants and facilities. **Without plants and facilities to process milk, dairy farmers and their cooperatives are in an extremely weak and vulnerable position.** Standby manufacturing and supply equalization plants are costly to own and operate in today's competitive conditions—but they are a "must."

Present today, and being pushed by today's business climate, are production methods, means of transportation, and the multiple operations of giant regional or national combines. If we are going to maintain or improve our position in a highly competitive economy, we must properly equip ourselves. It takes a lot of equipment to handle the milk of just one cooperative. **In the Michigan Milk Producers Association we have about 8 million dollars invested in marketing equipment to back up our bargaining efforts and demands.**

Does this kind of investment pay off? The answer is an emphatic YES

HYDRAULIC HENHOUSE

(Continued from Page 6)

3. **Absorption of ammonia odors**—from manure in the trough and minimization of manure odors outside of the building, or while transporting manure in a closed tank to fields.

4. **Minimum water costs** — by recirculation of the effluent.

5. **Simplicity of manure distribution** — tank wagons may displace manure spreaders, or better, irrigation systems may eliminate all "batch" handling procedures.

6. **Minimum labor**—for high-frequency manure removal.

7. **Minimum cost** — the "floating dam scraper" and a \$200 pump can displace a considerably higher investment.

8. **Fertilizer conservation** — becomes a definite possibility—with a potential for the sale of fertilizer.

A GOOD BOOK

DARING VENTURE, Philpott

Founder and builder of the Ralston Purina Company of St. Louis, Missouri, William H. Danforth lived life to the full and enjoyed all eighty-five years of it. Gordon Philpott, the author, met Mr. Danforth during his college years, and became a lifelong friend and companion.

Above all else, William Danforth loved young people, and had the ability to win their confidence and to stimulate them to extraordinary achievements. His American Youth Foundation laid the foundation for leadership in many boys and girls who are now leaders in business, church, professional and political life. This story is full of refreshing anecdotes and illustrations of what made his methods so effective—including live alligators. (Random House, Inc., 457 Madison Ave., New York 22, N. Y. \$3.95.)

Our plants and facilities are the very foundation of our bargaining and marketing program. When we go into negotiations, we plan to have a place to put all our milk, if it becomes necessary. Without them we could not have bargained as effectively as we have. We would not have been able to guarantee our members a year-around market for all their milk. We would have been unable to handle surplus milk, thereby preventing it from depressing all milk prices.

Finally, I could not emphasize too strongly that to bargain effectively, you must have means to back up your demands—**tough talk is not enough—control of supply and product is what counts!**

LIGHT FOR HENS

IN THE March issue of AMERICAN AGRICULTURIST there appeared an item on research by Professors Ostrander and Turner at Cornell University in connection with light intensity for best egg production.

The statement was made that "light intensity does not affect a hen's production rate." This is a misinterpretation. Professor Turner writes as follows:

"To our knowledge there have been no research studies conclusively showing that we can reduce the light intensity from that which has been recommended for many years. Our latest research showed that light intensities higher than that provided

by a 60 watt lamp did not increase egg production. Previous work showed a minimum of .8 of a footcandle, and therefore we recommend at least 1 footcandle intensity at bird level for a 14 hour daily lighting period.

"In cage or floor systems for laying hens we find that 40 watt lamps six feet above the birds on 12 foot centers will be needed to insure 1 footcandle of light throughout the life of the lamp. Lamp deterioration, dust, dark ceilings, and voltage drop all reduce the light output. For every 1 percent drop in voltage the light output drops off 3 percent, therefore some safety factor is necessary. We have seen no carefully-controlled research studies that show any change in this level of intensity."



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For those of you who prefer an easily mixed liquid, Amchem provides AMITROL-T. Same powerful weed killer formula, same effect on hard-to-kill perennials... but with the added convenience of spray application.

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Health Management for High Producing Cows



WHY DO dairy cows break down—and why are the highest producing cows sometimes the first to break down? In the answers to those questions can come a big difference in profits to many farmers. Some of the answers are known; some are not.

One thing is sure—one factor that contributes to the breakdown of many cows is a by-product of our constant attempt to boost production. According to the American

Foundation for Animal Health, there are at least three disease conditions which are associated with this race to push the cow for ever-higher production—milk fever, ketosis, and mastitis.

Milk fever probably causes the most acute death losses among dairy cows. This disease almost invariably strikes the best cows in the herd; it rarely affects heifers. The attack of milk fever generally occurs within 12 to 72 hours after calving, although

sometimes it can occur months later. Even today, the whole picture concerning milk fever is not fully understood, but cows stricken by this disease have a sharply-reduced blood calcium level. When one considers that the first 24-hour supply of a cow's milk contains more calcium than is generally found in the entire body of the cow, it is little wonder that high producers develop this condition.

Symptoms of milk fever include staggering and weaving; later the cow may become prostrate, with the head and neck drawn sharply to one side. When any of these signs appear, early treatment by a veterinarian can usually save the sick animal.

Another disease of high-producing

cows, ketosis, also goes under the name of acetonemia. This disease likewise occurs often within a few days after calving and is believed by many veterinary authorities to be due to deficiencies in the animal's nutrition in connection with production of the calf.

One explanation of ketosis goes something like this: In the absence of proper nutritive intake or utilization, the cow's body begins to tear itself down by converting fat into sugar, which it can utilize for energy. This means that chemicals known as "ketones" are left over to circulate in the cow's system and cause the condition known as ketosis. In the healthy, well-fed cow, the milk producing organs are geared to high production, but the remainder of the body becomes exhausted and fails to keep up with the demands placed upon it.

Symptoms of ketosis may include several types, such as loss of appetite, decrease in milk flow, excitement, staggering, swaying, biting or drooling. Owners should watch for these danger signs and get prompt professional help if losses are to be kept to a minimum. Often there are a number of less spectacular symptoms, nervous and otherwise, which may make diagnosis even more difficult.

Mastitis Worst

The most costly dairy cattle disease of all, of course, is mastitis. Except for the fact that dairymen are constantly breeding for bigger and better udders in the battle for production, blame for development of this condition usually can be placed on the men actually handling the cows, and also on lack of sensible and sound preventive and treatment measures. Two factors are of primary importance in controlling and eradicating mastitis: (1) eliminating conditions which can cause damage and harm to udders; (2) refusing to "tinker" with this costly disease.

In eliminating conditions that can help bring on mastitis, authorities suggest these steps: removing hopeless cases which can infect other cows in the herd, removing all objects which can cause injury of the udders (ranging from stumps in the field to improper vacuum in milking machines) and above all, relying on cleanliness and sanitation both in handling and milking cows.

As to a drive to really clean up mastitis in a herd, that takes determination and perseverance, but will pay big dividends in the end. First, the owner must recognize that there are several types of mastitis, with several kinds of germs, yeasts, and other causative agents involved. So, the first thing to do is have a veterinarian examine the herd, determine which germ or other agent is causing the trouble, and then prescribe medication that will clean out that specific agent.

But this isn't all. A follow-up program of re-examination of the cows at intervals is also important. This helps to insure that the disease will not sneak back in and leave the job to be done all over again. Don't "tinker" with mastitis, don't use half-way measures, are the Foundation's final words on this subject.

Of one fact we can all be sure—as we push our cows harder to get ever higher production, they are more and more likely to be subject to these conditions. The answer is not a question of stopping this push, but rather one of better management that will prevent these problems.

THE RECORD:

(DHIA '61-62 on 32 cows)
17,078M 3.6% 620F AND GOING HIGHER!

THE TEAM

that made it possible



Looking over current information on NYABC sires are (l to r) the Colton Brothers of Dalton, N.Y., Howard and Ronald, and NYABC technician Russell Roby. Of Roby, the Coltons say, "Russ knows the bulls, knows what we want to do in our herd, takes an interest in our herd and gives good service."

THE HERD

that made it a reality



All animals in the Coltons' Bettylane Holstein herd are home bred—none have been purchased. The Coltons have used NYABC service for over 20 years—100% for the past eight years. Actual DHIA herd averages are:

1960-61	30 cows	16,184M	3.7%	600F
1961-62	32 cows	17,078M	3.6%	620F

1962-63—3 months to complete the year; it's going even higher

Howard and Ronald Colton have proved NYABC breeding combined with top feeding and management is a vital asset in helping them achieve more pleasure and make more money from their Bettylane herd. See how NYABC can help you toward higher per cow production and more profit. Next time, call your NYABC technician.



YOUR HEADQUARTERS FOR SUPERIOR AI PROVED SIRES

Garden Reference File Up to Date

By ISA LIDDELL



DREAMING about those fresh vegetables and the colorful flowers you're going to raise this summer? Fine and dandy! With the layouts and succession of vegetables, fruits and flowers on paper—or just in your mind—let me suggest that you also arm yourself with some ammunition, the fine bulletins, pamphlets and circulars that are available from your State College on almost every subject under the sun.

In most states, single copies will be mailed free of charge to state residents as long as they last; additional copies can be had for a small charge — or perhaps you can get them from your county agent. Climate and other conditions vary from state to state, and usually you can save time and money by using the information developed and published for your particular locality. However, if you see a bulletin listed here that seems to fit your purpose even if published in another state, go ahead and order it—there will be only a small service charge. Address requests for bulletins, etc. to the Mailing Room at the college addresses given below.

There are also many agricultural and garden publications issued by the U. S. Department of Information. A list of these can be obtained by writing the Office of Information, U. S. Department of Agriculture, Washington 25, D. C.

University of Maine, Orono

- 287—Home Garden Insect and Disease Control
- 331—Sprays and Dusts for the Home Fruit Grower
- 363—Flower Gardening of Maine
- 374—Vegetable Varieties for the Maine Home Garden
- 419—Home Gardening in Maine
- 459—Growing Strawberries for Profit or Pleasure
- 468—Pruning Apple Trees
- 486—Maine Fruit Varieties
- 489—Red Raspberry Culture
- 493—Growing Healthy Vegetable Plants

University of Maryland, College Park

- EB 125—Sprays for Home Fruit Plantings
- EB 141—Home Vegetable Gardening in Maryland
- EB 150—Pruning Ornamental Trees and Shrubs
- EB 164—Rose Culture
- EB 165—Growing Azaleas
- EB 168—Control Insects of Ornamental Trees and Shrubs
- EB 171—Care of Lawns
- EB 174—Fertilizing Ornamental Plants and Shrubs
- EB 180—African Violets
- FS 30—Control the Japanese Beetle
- FS 70—Worms on Corn in the Home Garden
- FS 73—Diseases and Insects of Roses and their Control
- FS 93—Landscape Planning for the Small Property
- L 15—Maryland Vegetable Varieties

University of Massachusetts, Amherst

- A 29—Strawberry Growing
- A 48—Raspberry Growing
- A 208—Small Fruits for Home Use
- A 260—Tuberous Rooted Begonias
- A 261—Dahlias for the Home Garden
- A 262—Flower Gardens
- A 264—Fertilizing Home Fruits
- A 291—Pruning Shrubs and Evergreens
- A 293—Tree Fruits—Their Place in the Home Garden
- A 294—Lawn Pests
- A 313—Lawn Construction
- A 337—Home Fruit Spraying
- A 358—Composts for Home Grounds

- AN 90—Vegetable Varieties for the Home Garden
- AN 121—Currant and Gooseberry Growing
- AN 206—Window Boxes
- AN 211—Home Gardener's Shopping List—Control Materials
- AN 219—Garden Walls and Fireplaces
- AN 240—Rhododendrons

University of New Hampshire, Durham

- EC 261—Rodent Control in the Family Garden
- EB 130—Care of the Established Lawn
- EB 104—Growing Vegetables at Home
- EF 36—Vegetable Variety Suggestions
- EM 131—Producing Iris for the Home Garden

New Jersey Agricultural Experiment Station, Rutgers

- C 478—Growing Leafy Vegetables in New Jersey Home Gardens
- C 479—Growing Root Crops in the Home Vegetable Garden
- C 480—Growing Beans and Peas in New Jersey Home Vegetable Gardens
- A 481—Growing Tomatoes in New Jersey's Home Gardens
- C 549—Tulips in the Garden
- C 554—Narcissus in the Garden
- C 559—A Variety of Hardy Bulbs for the Spring Flower Garden
- C 571—Diseases and Insect Pests of Rhododendron and Azalea
- SC —Spraying Recommendations for Home Orchards

- E 121—Garden Iris
- E 298—Bush Fruits in the Home Garden
- E 304—Landscape Planning for the Home Grounds
- E 320—Lawn Care
- E 336—Peonies in the Garden
- L 81—Fifty Small Trees for New Jersey Home Grounds
- C 485—Summer Care of the Home Vegetable Garden
- L 196—Controlling Crabgrass in the Lawn
- L 230—Tomato Disease Control in the Home Garden
- L 237—Manual for New Jersey Home Vegetable Gardeners
- L 239—Evergreens Lose Their Leaves, Too.

New York State College of Agriculture, Ithaca, N. Y.

- E 191—Poison Ivy and Poison Sumac
- E 403—The Rock Garden (15c charge)
- E 603—Driveways and Sidewalks
- E 729—Control of Small Animals in Homes and Garden
- E 846—Home Storage of Vegetables and Fruits
- E 893—Peony Culture
- E 894—The Culture of Garden Chrysanthemums
- E 895—The Culture of Iris
- E 896—The Culture of Spring-Flowering Bulbs
- E 897—The Culture of Garden Roses
- E 900—Blueberries in the Home Garden
- E 914—The Culture of Gladiolus
- E 922—Home Lawns
- E 937—The Culture of the Delphinium
- E 943—Growing Strawberries for Home Use
- E1049—Suburban Gardening
- E1050—Diseases of Bearded Irises
- E1064—Ground Covers—Carpets for Outdoor Living
- E1070—Recommended Annual Flowers for New York State
- J 87—A Flower Garden of Annuals
- S 21—Sequence of Bloom of Perennials, Biennials and Bulbs

The Pennsylvania State University, University Park

- C 317—Diseases and Insects of the Flower Garden and their Control.

- C 439—Vegetable Garden Soil Management
- C 469—The Home Vegetable Garden
- C 471—Prevent Vegetable Diseases in our Home Garden
- C 477—Growing Tomatoes in the Home Garden
- C 497—Growing Gladioli in the Home Garden
- C 500—Growing Garden Chrysanthemums
- C 502—Diseases of Ornamental Shrubs and Vines
- C 98—Summer Care of the Vegetable Garden
- L 113—Sprays for the Home Garden Fruits
- L 178—Raspberries in Pennsylvania
- L 187—Controlling Insects on your Ornamental Trees and Shrubs
- L 210—Control Those Grubs in Your Lawn

University of Rhode Island, Kingston

- 44—Poison Ivy, Its Identification and Control
- 48—Lawn Insect Control
- 73—Pest Control for Homegrown Fruits
- 104—Chrysanthemum
- 141—Fertilizing Home Grounds
- 142—Transplanting Trees and Shrubs
- 167—Landscape Planning
- 179—Shrubs for Rhode Island

University of Vermont, Burlington

- Br 862—How to Feed a Tree
- Br 878—How to Improve Your Garden Soil
- Br 900—Ideas for Using Flowers
- Br 901—Tulips
- Br 927—Test Your Soil
- Br1011—Vegetable Varieties for Vermont
- Br1021—Pruning Pointers
- C 83—Herbs—Their Culture and Use
- C 109—Vegetable Gardening in Vermont
- C 123—Insects and Diseases in the Vegetable Garden
- C 131—Successful Lawns
- NEC 31—Landscape Planning for the Home Grounds
- P 17—Growing Raspberries in Vermont
- P 18—Growing Grapes in Vermont
- P 19—Growing Blueberries in Vermont
- P 29—Vermont Spot Weeder
- P 30—Growing Asparagus in Vermont
- P 33—Growing Strawberries in Vermont

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Center-Fill distribution pattern enables you to get **Up To 20% More "Homogenized" Silage** in the same size silo with less labor. It also eliminates hard or floating cores caused by direct blast.

● A Double Bonus—One, "20% more" means extra dollars from your silo investment. Two, helps your unloader to work better, provides firm path for drive wheel. Especially helpful for better unloader operation in freeze area.

Even-Flo fills corn, grass silage, shelled or crushed wet corn.

INSTALLS EASILY WITH UNLOADER

Write or see your silo company or dealer. Dealerships available in some areas.

Put in the silo mixed, comes out of the silo mixed, goes into the feed bunk mixed.

Please send me information about Even-Flo "Homogenized" Silage. A4

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FIRST CLASS DRINK

WHAT DOES Class I milk mean to a dairy farmer other than income? To me it means exactly what the wording specifies—"First Class." It is not a pricing category which any type of milk can be classified into, but rather a grade or quality



LOUIS P. LONGO

of top-class milk surpassed in purity and flavor by no other beverage. It is very natural for farmers to concern themselves each month about the percentage of Class I milk sales that have taken place in their market, because this is an important factor in their total income. This "drinking milk" brings nearly \$3.00 per cwt. more in our Connecticut market than Class II milk used for processing.

Too often dairy farmers forget that every ounce of this higher-priced product has to pass under the noses and over the taste buds of every user. If the odor and flavor is pleasing, the results are repeated and increased sales, greater Class I sales—and more income to dairy farmers of a higher blend price. If, on the other hand, the odor and flavor is not pleasing to the buyer, the results are no repeat sales, and perhaps the loss of a good buyer for a long period of time. It is very easy these days to lose a milk drinker because of the hundreds of other beverages which claim to be qualified to take over—beverages that do maintain a uniform odor and flavor.

Although flavor is the primary item for milk sales, many dairy farmers trespass very carelessly on the good flavor of milk. Malpractices in the field of flavor management on dairy farms is a common thing and must be corrected. Just one producer of off-flavored milk can spoil the market for hundreds of other dairy farmers, because of the method of blending which takes place at dairies. This one producer is being unfair to the farmer who is putting extra effort and time into the production of top-flavored milk, yet has to suffer because of the loss of sales caused by someone else.

There's no point in advertising, packaging in attractive containers, and claiming to have the purest and best product—unless the flavor and odor is acceptable to the consumer. It seems to be a hopeless struggle to do all these things with no guarantee of uniformly good flavor from the producer. A method must be devised and enforced better to detect—and then reject—bad-flavored milk before it can get near the consumer. This would be a primary step toward improving dairy farm income.

Whenever a dairy plant rejects off-flavored milk, the financial loss is not to the dairy plant but rather a big loss to the farmer or farmers, involved. If, on the other hand, the

off-flavor is not detected by the dairy plant, and the milk is passed on to the consumer, the financial loss is then to the entire dairy industry.

Why not every farmer flavor-taste his own milk every day? It's a very simple process, and a wonderful flavor safeguard—just take a small sample of milk each day, heat it to about 150 degrees, then smell and taste it. In this manner off-flavors could be detected in the very early stages, and corrected before the dairy or consumer ever realized it happened. Producers could also check the dairy they ship to by buying an occasional quart of milk and taste-testing it. Farmers should stop asking their neighbors "How are the cows milking?" and ask instead, "How is your milk flavor holding?"

—Louis Longo, Glastonbury, Conn.

GOVERNMENT SPENDING

Everyone who has ever done any farming knows that land, plus investment and work, can sometimes bring profits—and, as aggravating as it is, sometimes not. Even anyone who has made a garden has discovered the same thing on a limited scale.

Now here is what really floors me—the government, by spending millions and not producing anything at all, expects to make the country richer. Just why people are not more concerned about this spending by woolly headed theorists is more than I can understand.

Are we in a stupor? I know every time I have to spend a sizeable sum I have to go into a sort of trance to keep "from hurting so bad." Is the whole country in one? — Leon P. Davis, South Royalton, Vt.

LIGHTNING PROTECTION

In a recent issue there was a very good article regarding the need for lightning rod protection on farms.

As a part of the article it was suggested that the Underwriters' "Master Label" should be delivered before payment was made. My own personal experience has proven to me that this method leaves the door open to loss, as quite often the customer claims that they never received their label, and how can it be proven that they did? A duplicate cannot be issued from Underwriters, so the installer is out his material, labor, and incidentally time.

I have been in the lightning protection business for several years, and have accumulated several thousand dollars on the books because I took the word of those who promised to pay later.

In the matter of securing the "Master Label," the installers hands are tied once he makes out the application and mails it. I know of instances where the purchaser said he did not receive the label, but when I became persistent enough he suddenly "remembered" it. — John T. Moran, Brainard, N. Y.

— American Agriculturist, April, 1963

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MR. MILKER Gets a Physical

By HARRY R. HAMILTON*

YOU KNOW, I'm not quite sure whether I should tell this story, or go lie down on a couch at my psychoanalyst's office! It all began while checking over the milking system on a farm way up in the Berkshires. I had my trusty stethoscope on the vacuum pump, listening for air leaks. All of a sudden I heard a small voice say, "Now, don't get excited, Harry; I'm Windy, the vacuum pump. I want to talk to you."

In my surprise I fell backwards, knocking over a can of pump oil. I slid up to the edge of a half-filled gutter; my fur hat landed squarely in the middle, and gently floated downstream.

Shaken Up

I cleaned myself off as best I could, found a milk stool, took it to the milk room, and sat down to light my pipe. It flashed through my mind that many people had called me crazy for starting a technical service for milking machines. Maybe I **had** flipped my lid!

The second pipeful soothed my nerves, so back I went with grim determination. Again applying my stethoscope to the pump, I heard a chuckle, and then the voice said, "I told you not to be scared, Harry. The vacuum line, vacuum controller, pulsators, milker units and I all want to tell our story. Please help us." So here I am with a story right from the horse's—I mean the vacuum pump's—mouth.

Windy continued: "Harry, I well remember the day I was installed. I had many visitors who admired my beauty, size, and capacity. My exterior was cleaned weekly and my oil was changed as recommended. I was a very happy, well-adjusted vacuum pump, the heart of the milking system, doing my job of delivering plenty of vacuum to the rest of the system. We all worked in harmony like a well oiled clock."

At this point the voice became weaker; I heard a stifled sob, a belch, and then a wheeze before it continued: "Soon after this I had more vacuum line and milker units added on. I was moved from my warm location to a distant cold one and, being out of sight, I was soon neglected. They no longer kept my outside clean, and they forgot to change my oil—or if they did, they refilled me with the wrong kind that gummed up my innards. On cold mornings the oil was so thick that it took time and extra power to get me up to the proper speed to produce enough vacuum."

"Right now I have indigestion and need at least a box of Ex-Lax to remove the dirt, rust, cow hairs and globbered milk churning around inside me. When the additional vacuum line and more units were added, the boss didn't increase my horsepower, so as of now I'm underpowered and running on low voltage. What it would do to my morale just to be put on the correct voltage!

"As you can plainly see, my 'V' belt is so cracked and frayed that it could break most any time. I'm so mortified at the condition I'm in—after all, we have our pride, too! By the way, could you warm up that cold stethoscope?"

The vacuum pump went on: "Now, I really mustn't take up **all** of your time, Harry. Let me introduce you to the vacuum line. We call

him 'Octopus' because of his many additions, some of which have never been explored. So you won't get lost, I suggest you take a ball of string and tie one end to me before you look him over. Octopus, meet our friend Harry."

I shook hands with Octopus through my pipe wrench as I started to loosen a union close to the pump. "Stop!" yelled Octopus in a frightened voice. "Don't do that until you open up all the windows and doors and get the cows out. I've got enough gas in me to kill everyone in the barn."

After he calmed down he began his story. "When I was being installed, the service man tried to get the boss to put in a one-inch line instead of this three-quarter inch bit. The boss said the bigger line was more expensive—but the smaller one has turned out to be more expensive because it has kept me from operating efficiently."

"Later, as you'll see, many more feet of vacuum line—some one-inch, some three-quarters, and a section of one-and-a-quarter—have been added; now I have **only** six dead ends. When I was new, they gave me an enema every three months whether I needed it or not; I can still remember how clean and cool and sweet I smelled in those days. Now they have forgotten all about flushing me out, and if they tried they'd have to use dynamite!

"I have stall cocks that are screwed into tees, and stall cocks that were added by being tapped right through my tough hide. I have stall cocks that leak, others that are so loose the cows can turn them on and off at will; and some that require a pipe wrench to turn them on. I have drain valves which are completely plugged, and others located in the wrong places. Rube Goldberg would die of envy if he ever saw my pipeline winding around beams, diving under crosswalks, shooting up over ceilings, through cold rooms—even outdoors between buildings."

"My condition is not hopeless; all I need is to be cleaned out, straightened out, tied together, and kept clean every three months or so. I'll go along with your idea of installing a 50 gallon drum on the line as a vacuum accumulator, too."

"These changes wouldn't cost so much. The boss could do them himself because he's handy with tools, even if he has got so he's absent-minded. Who knows, he might even listen to you if you suggest a new inch-and-a-quarter vacuum line! While he's at it, he could check my stall cocks and drain valves for air leaks every six months, and replace or repair any that aren't up to snuff. If he'd only brush them out, too, once a month!"

Three Beauties

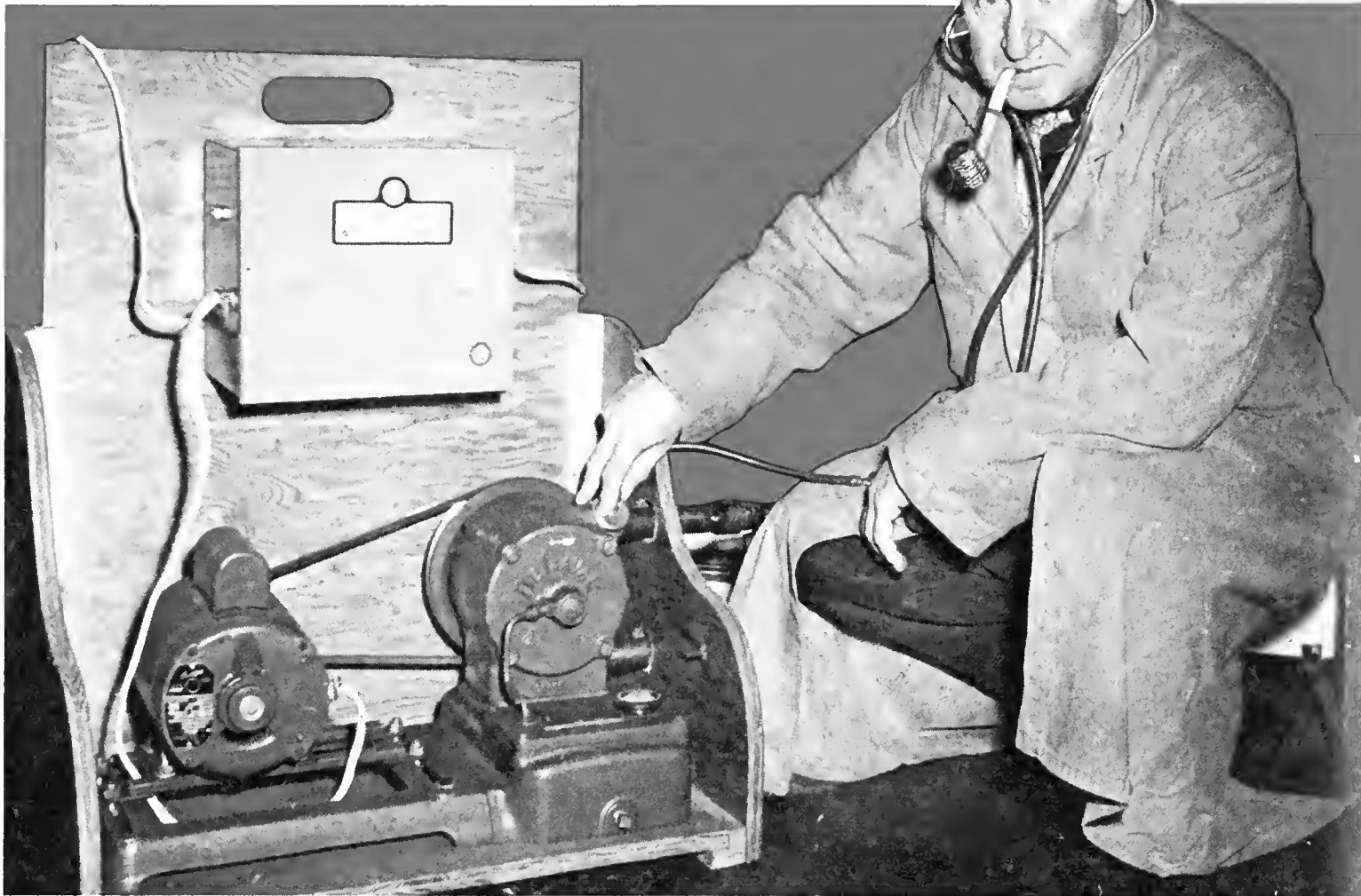
The vacuum pump thanked Octopus, and said to me: "Now, it's time for you to meet the triplets, Mabel, Rosie and Gladys, our vacuum controllers. They **all** want to talk to you, but have agreed to let Mabel be the spokesman."

I scraped at least a year's accumulation of dust from Mabel's screen, and was rewarded by the sound of air being taken in. Mabel gave a sigh of relief and said: "Welcome, Harry, and thanks for the brush-off. I haven't had such a good lungful of air in a long time. You seem surprised to find we have **three** vacuum controllers on the line; let me try to explain."

"When the vacuum line was first installed, Rosie was put in at the far end of the line, as was the custom in those days. Then when the line was increased in length, someone suggested a second controller be installed in the center of the line—that accounts for Gladys. Recently, the boss read an article in some magazine where the latest dope was to have a vacuum controller close to the pump—so here I am. In that article (which is right) the author apparently did not say anything about removing the other two controllers and plugging the openings—so they were just left there as things of beauty."

"I'm always telling Rosie and Gladys that they have reached legal retirement age, but no, they insist on staying. I am capable of protecting the whole line and keeping the vacuum at a level recommended by the manufacturer if they would only take me apart once a month, thoroughly clean me, and keep my intake screen clean. Don't

Continued on Page A-4



Harry Hamilton uses a stethoscope to test a vacuum pump for air leaks in research equipment at the University of Massachusetts. He also has a sensitive vacuum recorder that literally makes a "cardiogram" of the performance of the vacuum milker system. He has checked milkers on hundreds of dairy farms.

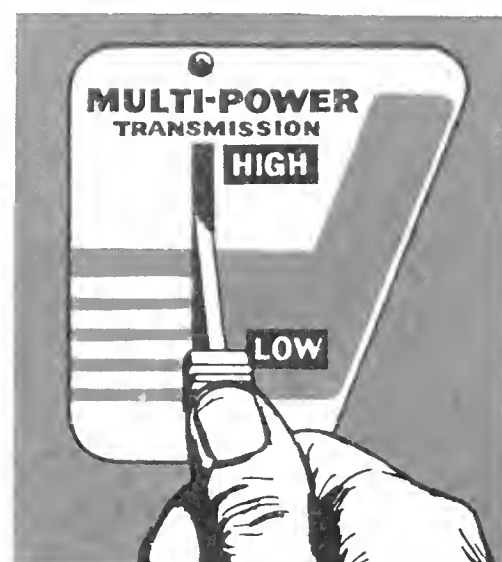
* Milking Machine Technician, Glastonbury, Connecticut



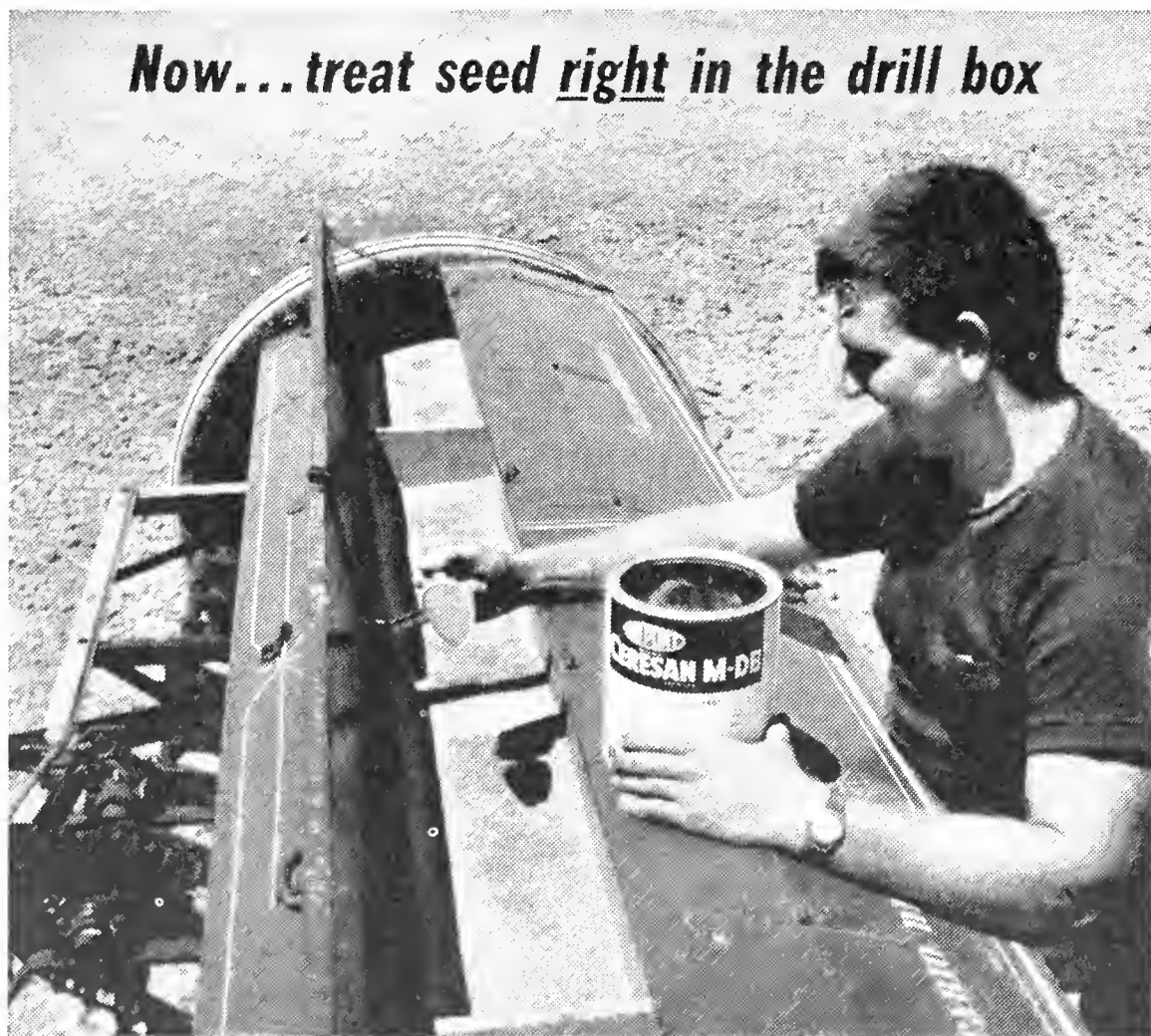
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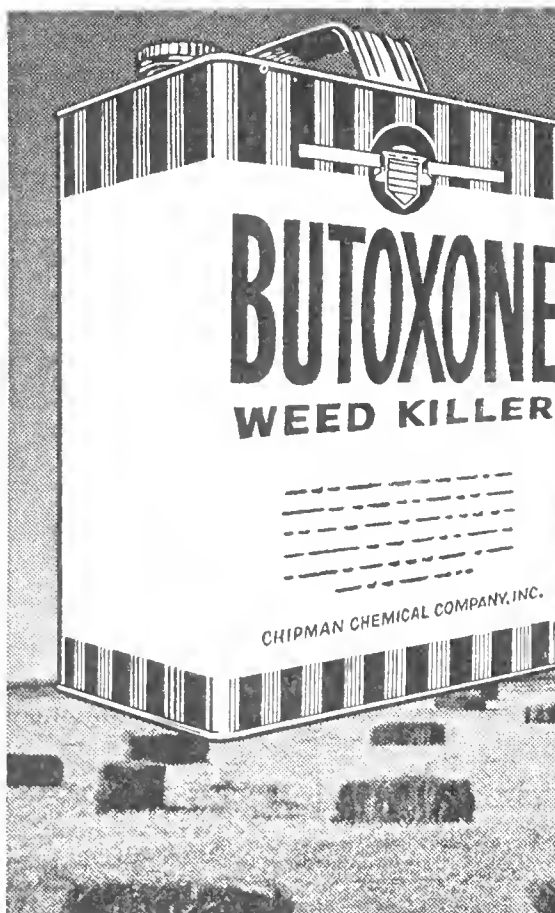
Treatment in the drill box also means no left-over treated seed. You treat just what you plant. Even if you have some of your seed treated, take home a can of "Ceresan" M-DB to treat extra seed

you may need to complete your planting.

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MR. MILKER Gets a Physical

Continued from Page A-2

you agree with me, Harry?" asked Mabel in her husky, oily voice.

I had to agree with her, because there should only be a **single** vacuum controller on any line, located close to the pump and cleaned monthly. I took a closer look at Rosie and Gladys and found them completely inoperative. Mabel didn't know it, but she **was** carrying the whole load herself, doing the best she could even though her breathing was below par.

Pulsator Pitch

Windy was shaking himself apart trying to get my attention. "Harry, the pulsators have been racing like mad and are going to be so tired out they won't be able to talk if you don't get around to them pretty soon. As you've already noticed, this is a very unusual milking system in many ways. We have three magnetic pulsators and three pneumatic ones. Like to have you meet one of the pneumatics; we call him Uneven Speed. Uneven, this is Harry."

"G-g-g-lad to know you, Harry," wheezed Uneven Speed. "Just put your stethoscope on my short air tube and listen to my story. When I was new and in my prime, when the vacuum pump was in good shape, the vacuum line clean, and the vacuum controller working right, I really could milk the cows fast. But now my body is damaged and my diaphragm is cracked, and dry as the Sahara Desert from lack of a few drops of oil.

"My air passages are just about plugged, and I'm starved from lack of proper vacuum. I haven't been cleaned since Hector was a pup; my speed jumps all over the place because the vacuum varies on the vacuum line. I'm stored between milkings in a cold spot, and it takes me ten minutes to get warm enough to start pulsating. The boss gets impatient and opens me up so I race to my limit of pulsations, then he forgets to slow me down and I race on like a tractor with a stuck governor. One of these days I just know I'll fly right through the side of the barn!

"I wish the boss would keep me in a warm place during the night, even if he has to take me to bed with him to keep me warm. And if he'd do this maybe he'd give me a bath before he took me under his clean blankets.

"My short air and pulsation tubes are porous and leak air like a sieve—how the milk inspector ever passed them, I'll never know. The air ports of my innards are half filled with casein and butterfat so I can't go back to zero during the release stroke. You can prove it with one of those new-fangled, high-falutin' vacuum-recording gauges that you brought along.

Then Sparkee, the magnetic pulsator, spoke up: "You know, Harry, most people think that because I'm controlled by electricity I am completely foolproof. That's not so — sure, my pulsations are more posi-

tive with no variation in speed, but I can vary in amount of vacuum if the controller isn't working right.

"I have a piston that moves by air and vacuum; dirt, hair, sawdust and moisture can gum up my works just the same as they do a pneumatic pulsator. It's just as important to clean me out once a month if I am to give efficient operation.

"And in an electrical pulsator there are other things to check—correct voltage, wires, points, and mercury tube. Also, in case of power failure, I should have some way of getting a supply of electricity so that I can keep on working. My magnet should never get wet or be banged against a stanchion. My bald head should always be protected by the rubber cap, which also prevents flies from being sucked down my throat and, like the pneumatic pulsator, I should be stored where it is nice and warm between milkings.

"Once a month I should be taken apart, thoroughly cleaned, and reassembled. Check the condition of my gaskets and make sure all the air passages have been cleaned out."

Milker Memo

Meanwhile Windy had assembled the milker units, all six of them. Their spokesman was waiting to be introduced, and he began talking as I put my stethoscope on his short air tube on the teat cup.

"Our biggest complaint is the condition of our rubber parts. Right now we need new check valves, check valve gaskets, pail gaskets, short air tubes, pulsation tubes and, most of all, new inflations. They are so stretched and baggy that one of these days they'll fall over from sheer exhaustion.

"You know, Harry, years ago I heard you at a barn meeting talk on the advantage of rotating teat cup liners. Let's see if I can repeat your pitch.

"Your recommendation was that a dairyman should have two sets and rotate them every week, putting the ones that had been used into a box and keeping them away

from light and heat. At the end of the week boil them in lye and put them back in the teat cup shell; the lye will keep the inflations free from butterfat. Two sets used this way will last longer than three sets that are used in a pattern where a set is used continually until worn out. You also said that the short air tubes should be rotated the same way, using two sets—I'm all for that! Narrow bore liners should only be used in narrow bore shells, never in the regular teat cup shells.

"If the boss would only wake up to the fact that the teat cup liner is the only part of the milking system that comes in contact with the teats he'd understand the importance of their condition!"

You may think the stories my friends told me are exaggerated; but do **you** have the nerve to get out of your glass house and listen to the voices of your own milking system?



PERSONAL FARM EXPERIENCE

GROWING CORN

IN 1962, we plowed our corn ground, disked it once, cultipacked it once, then planted. We won't do that again because we got a skip wherever the planter hit the wheel track—the seed just wouldn't cover because the soil was compacted. This year we are going to use a harrow with a cultipacker drawn behind it and cover the field twice with this rig. We'll go over just once, but lap each bout so it will actually be covered twice.

Last year we had 25 acres of corn, all of it Wisconsin 335, except for 14 rows or dwarf corn as an experiment. We planted between May 20 and 25, started filling silo right after Labor Day with the ears at a hard dent stage.

We shot for 24,000 plants per acre and ended up with 22,000. The seed was coated with a dry powder crow repellent, and also with powdered graphite to grease the seeds' path through the planter.

Fertilizer included 10 to 12 tons of manure plowed down along with 300 pounds per acre of 15-10-10. We put on 200 pounds of 15-10-10 with the planter, using an adapter that moved the fertilizer application away from the split boot.

For weed control last year, we pre-emerged 2,4-D on one field, plus one cultivation when the corn was a foot high. On another field, we used Atrazine when the corn was about six inches high; the weed kill was excellent.

The fourteen rows of dwarf corn had excellent standability, something

to consider in New England where fall hurricanes sometimes complicate corn harvest. I believe we can push plant populations up with this type of corn to as high as 30,000 plants per acre.

The dwarf corn was not as mature as the Wisconsin 335 when harvest time came, so we ran in a load of dwarf and then three of regular size corn. This way, we prevented formation of a layer of immature corn that might throw cows off feed if they were suddenly changed over to it.—Cecil Stockwell, Great Barrington, Mass.

DWARF TREES

We have 180 acres of fruit, on 60 acres of which we have planted dwarf trees, using Malling II, Malling VII, and interstock IX—the VII on wetter soils.

Spacing has been 15' x 25' with EM II, 12½' x 25' for the EM VII and interstock IX, and 10' x 20' and 8' x 20' for the EM IX. Through our experience, it appears that spring planting has an advantage in terms of tree losses, but fall planting results in better growth in the first year.

Fertilization on these trees has been one pound per tree of Chilean nitrate for the first year, then one pound of 15-0-14 per tree per year of age after that.

We cultivated the first block of 30 acres for three years. However, we have found that some roots have been cut and a number of trees damaged. We now use herbicides and no cultivation; materials have included Dowpon, Amitrol-T, Simazine, or Karmex.

For the first three years, aphid control was the major spray problem. Cygon and Systox proved very effective. Sulfur cleaned up mildew, and we also added DDT to our program. After the trees had been in the ground three years, we started a full spray program using a 3X concentration with 2X material.

On the EM II at five years of age in 1962, we harvested 100 bushels per acre from Golden Delicious, Greening and McIntosh; the corresponding Red Delicious yield was 30 bushels per acre. —Preston Gaylord, Sodus, N. Y.

LIKES CORN SILAGE

We grow about 10 acres of corn, of which 14 is picked for grain. We have three upright silos, one of which is filled with sweet corn silage, cobs, and husks from the canning factory. Incidentally we also grow 15 acres of sweet corn.

Last year, in addition to plowing under 10 to 12 tons of manure per acre, we plowed down 30 to 35 pounds of nitrogen sprayed on in liquid form and also applied from 300 to 325 pounds of 10-20-20 per acre in the planter.

During the summer I watch the leaves for signs of nitrogen deficiency. I didn't see any last year, but if there had been I planned to side-dress with nitrogen.

The amount of plant food used is determined by a soil test. The soil in this immediate area is considered to be naturally "high lime."

I milk around 38 cows, and feed corn silage the year round. Corn is an important crop on this farm.

—Robert Pickard, Dansville, N. Y.



Whispering Hope

THE TITLE of this piece is an old song which was often sung with much pathos and emotional appeal. It stirred the hearts of many listeners with wishful yearnings. What is the evident power of this thought?

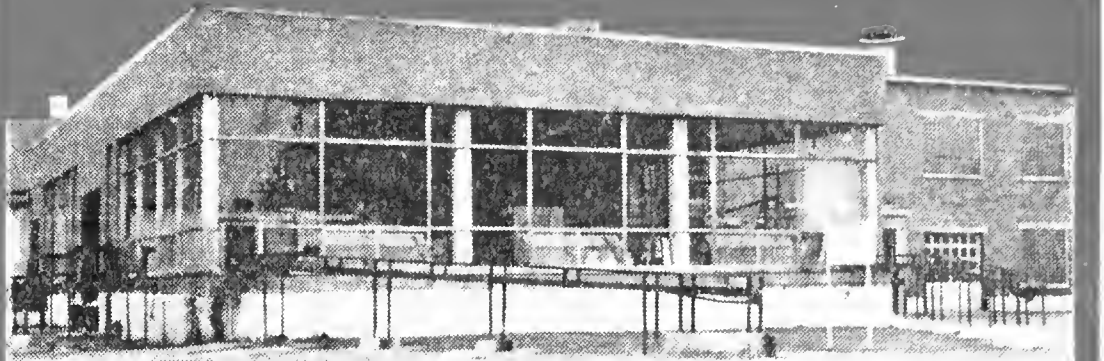
Would it be too much to say that "hope is life?" An old saying may give us a clue. "If it were not for hope, the heart would die." Hope seems vital to living. It has a faculty that arouses awareness. It lifts the shadows, lets in the light, or turns it on. "Why art thou cast down, O my soul?" asks the Psalmist, then answers his own question, "Hope thou in God."

Can we add that hope is exhilarating? In another Psalm the thought appears, "He is the lifter up of my head." And in a different mood, "He maketh my cup to overflow!" Hope can put joy into life; not the bubbling of an effervescent drink but a draught of living water.

Finally, hope gives inspiration. Somehow comes Divine assurance of realizing our expectations. We try harder, think clearer, sense new strength, feel more sure of success, and come through the ordeal new persons in every respect. God in us has created newness to match our need.—Arthur Moody

American Agriculturist, April, 1963 —


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Frank App looks at some top quality hay to be used for heifers.

THE USDA reported that in 1962 the number of dairy cattle shipped into the northeastern states annually was 101,000. They also gave the out-shipments from the Northeast as 59,000.

The job of management in maintaining a good milking herd is a man-sized undertaking. This in itself presents an opportunity for raising quality dairy heifers for replacements. Many dairy farmers would prefer to buy quality heifers for replacement if they could be assured of a good source of supply. Consequently, the figures of "in-shipments" and "out-shipments" do not indicate the full opportunity for raising dairy heifers as a major farm enterprise in the Northeast.

As the dairy industry shifts to larger milking herds, some farmers not wanting to make the increased investment could use their present facilities with some minor changes to raise dairy heifers instead of producing milk. To make the raising of dairy heifers a major farm enterprise, the farmer needs a source of quality heifers and a marketing system that will allow him to sell these heifers profitably.

Many dairymen would prefer to buy such replacements if they were sure of their quality because it is difficult to find replacement heifers having a known background of inheritance representing superior production. The best dealers know where to get quality heifers as well as quality cows; they also know where to sell them. Consequently, the first step for anyone considering heifers as their major enterprise is to examine the possibility of inter-

*Director of Research, Emeritus, Seabrook Farms, New Jersey.

Heifer Raising Specialists

By Frank App*

grating purchasing, growing and marketing.

No grain is necessary from ten to twelve months of age up until the time of calving, providing the grower has an adequate supply of high quality forage. Hay, whether grass or legumes, should be cut early in order to obtain highest feed value and digestibility, along with the palatability animals desire. The same is true for ensilage.

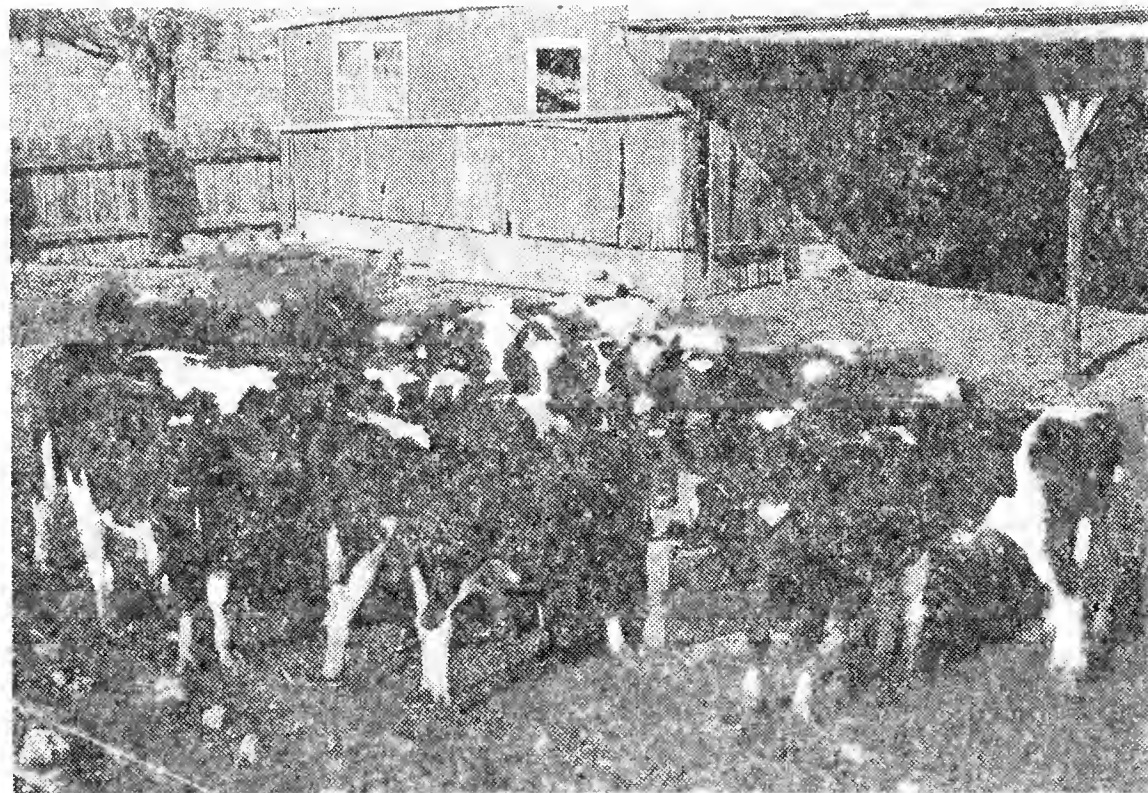
Fertilize Pastures

Pastures should be fertilized; I find that mine require a minimum of 100 pounds—and preferably 150 pounds—of nitrogen per acre per year, plus sufficient potash, phosphorus and lime for quality plants to grow. The same applies to hay and ensilage. Soil analysis is essential as a guide to the proper fertility standards.

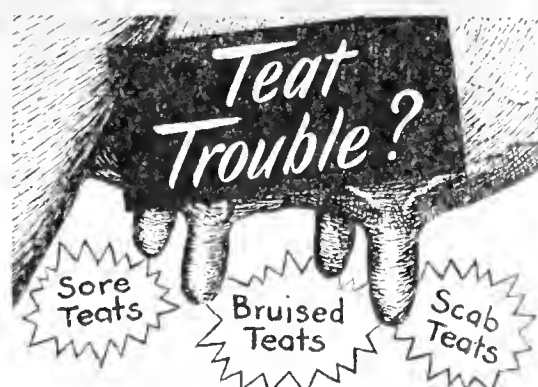
During the past year I had 140 heifers on 60 acres of pasture. All of these pastures are supplied with sufficient fertilizer; many of them were also topdressed with manure. I have not yet been able to replace fertilizers entirely with manure though.

Under my conditions, I find orchard grass most desirable of the various grasses ordinarily used, but find others that do almost as well. On a small field of two acres of Midland bermuda grass and two of bluegrass I pastured 21 bred heifers until they were sold for replacements in late June. The buyer wanted to know how much grain they had because they were in such excellent condition. I told him I never fed heifers grain; he looked over the rest of my 140 head and said, "You don't need grain!"

(Continued on Page 33)



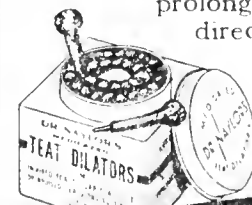
Here are some of the nearly 300 heifers being grown for sale by Ken Noble at Linwood, N. Y.



KEEP 'EM MILKING
with this 2-WAY ACTION!

Dr. Naylor Dilators promote natural milking and speed healing because they ACT TWO WAYS:

1. ACT MECHANICALLY—keep end of teat open to maintain free milk flow. Stay in large or small teats.
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MEDICATED
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Large pkg.
\$1.00

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It pays to plant quality stock. Musser trees, grown from selected seed from hardy, disease-resistant parent trees, grow and thrive where inferior stock may fail to survive.

Quality Seedlings and Transplants
at LOW, QUANTITY PRICE

50 at 100 rate Per 100 Per 1000

SCOTCH PINE (Special Strain)

Fine Christmas Tree Strain. Also French and Spanish.

2-yr. Seedlings.....4-8" \$ 5.00 \$ 25.00

3-yr. S., root pruned. 8-16" 8.00 40.00

BLUE SPRUCE—Excellent Stock

3-yr. S., root pruned. 6-12" 11.00 55.00

5-yr. Transplants.....8-14" 30.00 150.00

WHITE FIR—Ornamental or Christmas Tree

3-yr. S., root pruned. 6-10" 8.00 40.00

5-yr. Transplants.....8-12" 20.00 100.00

NORWAY SPRUCE—Fast Growing

3-yr. S., root pruned. 10-18" 9.00 45.00

3-yr. Transplants.....5-10" 15.00 75.00

4-yr. Transplants.....8-12" 17.00 85.00

CHINESE CHESTNUT—Blight resistant

Valuable ornamental, shade and for mts.

Seedlings.....12-18" 30.00 150.00

Many other Evergreens

Hardwoods, Ornamentals & Shade Trees

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Planting Lists—Xmas Tree Growers' Guide

MUSSER FORESTS

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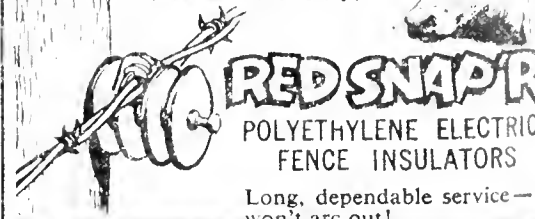
Best Tested and Proven Varieties
**ALFALFA • OATS • BARLEY
HAY and PASTURE MIXTURES
HYBRID CORN • POTATOES**

Free Price List offers complete line of farm seeds at reasonable prices—write today.

Edward F. Dibble, Seedgrower Since
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TOP QUALITY FOR HIGHER YIELDS!

**—HOLD THAT
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Long, dependable service—won't arc out!

NORTH CENTRAL PLASTICS, ELLENDALE, MINN.

CALF SCOURS

Stop Diarrhea with New DIRENE

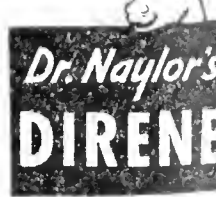
—Intestinal anti-septic with 3 way action—Control bacterial infections

—Absorb harmful toxins—Cool, soothe, protect irritated stomach

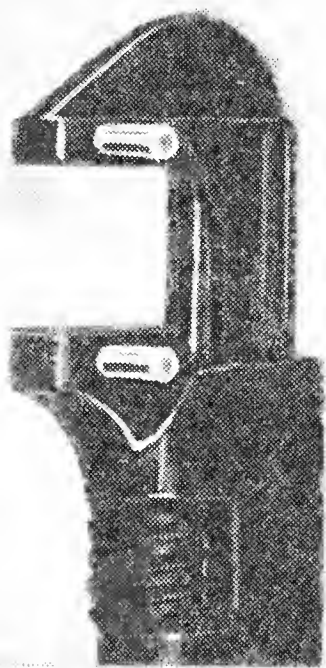
and intestinal lining. 14 oz. pkg.

\$1.25 at dealers or postpaid.

H. W. NAYLOR CO., Morris 1, N.Y.



Handy Farm Items



ADJUSTABLE SPANNER

Since the bungs on oil drums are often of varied sizes, it's a job to keep a spanner wrench around for each one. One way to solve the problem is to use an old monkey wrench. Holes (3/16") are drilled at the inside outer corners of the jaws, then pins driven in so they extend about 5/16" above the surrounding surface, thus providing an adjustable spanner wrench. Pins are outlined with white in the picture for better visibility.

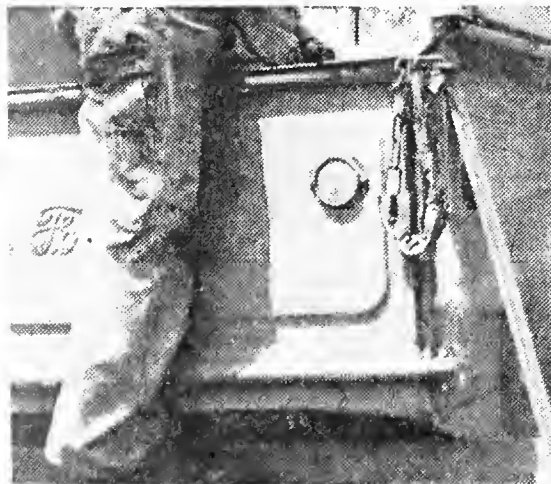
HOMEMADE HOLDER

An adjustable stand welded from a car brake drum, telescoping pipes and a piece of heavy angle iron are almost as good as a helper when working in the farm shop. The height is adjustable by loosening and tightening a set screw made from a threaded rod which has a right angle bend for a handle.



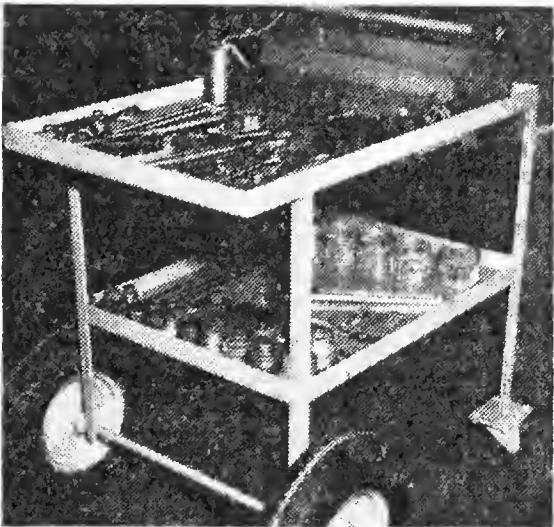
SHIN SAVER

This combination bumper, trailer hitch and step is a shin saver as well as being handy. A 4-inch angle iron was welded to the chassis and reinforced at the ends with bar iron. A hole for a hitch pin was drilled in the center so machinery could be trailed to the field.



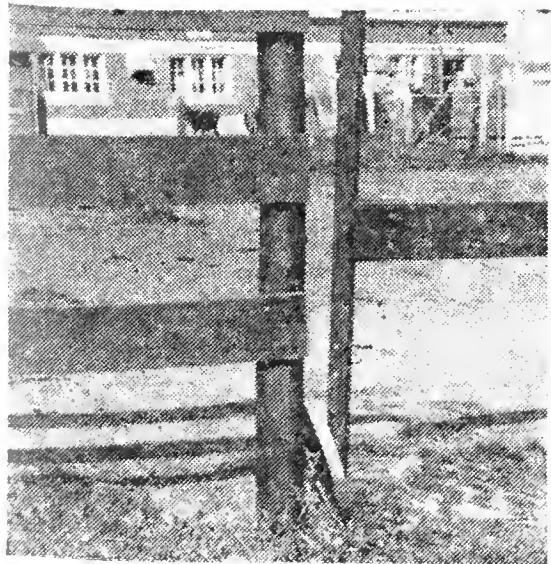
UTILITY CART

This all-steel, double-decked utility cart has various uses in any man's workshop or garage. Rubber-tired, it pushes easily; large wheels are non-turning — steers from rear. Angle-iron rim on both decks keeps tools from spilling. Entire assembly is welded, takes abuse.

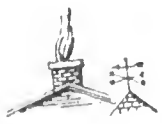





GATE WHEEL

A wheelbarrow wheel, with the axle welded to a rod that is bolted to the barnyard gate, prevents the gate from sagging on one end. The wheel makes it easier to close the gate, keeping it level all the time.



What Is A "Strong" Wind?

Terms used in official forecasts	Miles per Hour	Wind effects observed on land	
Light	1-3	Calm; smoke rises vertically. Direction of wind shown by smoke drift but not by wind vanes.	
Moderate	13-18	Raises dust and loose paper. Small branches are moved.	
Strong	25-31	Large branches in motion; whistling heard in telegraph wires. Umbrella used with difficulty.	
Hurricane	75+	Rarely experienced; accompanied by widespread damage.	

Whatever the wind, do "blow in" to G.L.F. for facts on best use of fertilizers and seeds on 40 acre fields or 40 square foot gardens. And plan your field work with WEATHER ROUNDUP at 6:25 and 7:15 A.M., 12:15 and 6:15 P.M. over these stations:

FM STATIONS

Auburn	WMBO-FM	96.1 mc.
Binghamton	WKOP-FM	99.1 mc.
Bristol Center-Rochester	WMIV-FM	95.1 mc.
Cherry Valley-Albany	WJIV-FM	101.9 mc.
DeRuyter-Syracuse	WOIV-FM	105.1 mc.
Hornell	WWHG-FM	105.3 mc.
Ithaca-Elmira	WEIV-FM	103.7 mc.
Jamestown	WJTN-FM	93.3 mc.
Niagara Falls-Buffalo	WHLD-FM	98.5 mc.
Olean	WHDL-FM	95.7 mc.
Wethersfield-Buffalo	WBIV-FM	107.7 mc.

AM STATIONS

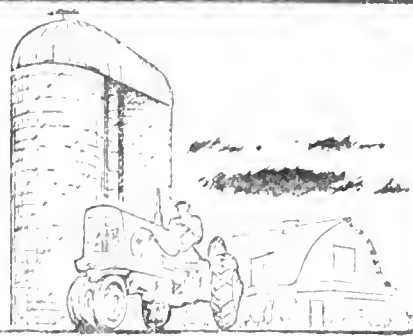
Auburn	WMBO	1340 kc.	Olean	WHDL	1450 kc.
Binghamton	WKOP	1360 kc.	Remsen	WREM	1480 kc.
Boonville	WBRV	900 kc.	Rochester	WROC	1280 kc.
Dunkirk	WDOE	1410 kc.	Salamanca	WGGO	1590 kc.
Elmira	WENY	1230 kc.	Saratoga Springs	WSPN	900 kc.
Glens Falls	WSET	1410 kc.	Sayre, Pa.	WATS	960 kc.
Gloversville	WENT	1340 kc.	Schenectady	WGY	810 kc.
Hornell	WWHG	1320 kc.	Syracuse	WHEN	620 kc.
Ithaca	WTKO	1470 kc.	Syracuse	WOLF	1490 kc.
Jamestown	WJTN	1240 kc.	Utica	WBVM	1550 kc.
Niagara Falls	WHLD	1270 kc.	Walton	WDLA	1270 kc.

Northeast Radio Network



Brought to you at 7:15 A.M. by the Cooperative G.L.F. Exchange, Inc.

ON A WORKING FARM ON A WORKING FARM ON A WORKING FARM



ONE MARIETTA
is seldom enough
savings from one
buys another.

Marietta

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KING
SILO**

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MARIETTA SILOS
MARTIN MARIETTA CORPORATION

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ANNOUNCING OUR ANNUAL PRODUCTION SALE
50 YORKSHIRES AND BERKSHIRES

BRED GILTS AND 10 SERVICE BOARS

AT THE FARM ON SATURDAY, APRIL 6th
1:00 P.M. E.S.T.

Guest Consigner—Hamperden County Training School
Feeding Hills, Mass.

LUNCHEON SERVED AT THE FARM

*Inexpensive Pool Olivories Arranged
Fritz Eisenhard, Sales Manager, Warsaw, New York
David Tracy, Auctioneer, Pavilion, New York
Tom Whittaker, Auctioneer, Brandon, Vermont

*Mail coupon below for catalogue and
request for information

To: SIR WILLIAM FARM, HILLSDALE, NEW YORK
Gentlemen: Please send me a copy of your catalog
for your April 6th Production Sale.

Breed: _____ Name _____
Purchased _____ Address _____
Commercial _____ City _____
I am interested in: _____
Bred Gilts _____ State _____
Service Boars _____

AYRSHIRES

GRAND NATIONAL SALE

May 11th at 12:30 P.M. E.D.T.

CENTRAL PARK, BRANDON, VERMONT

Dams of all consignments have top RECORDS
AVERAGING OVER 14,525 MILK 4.3% 624
LBS. FAT ACTUAL, 2X 305 DAYS. Several
have over 20,000 LB. ACTUAL RECORDS. 21
Approved Sires—16 sires classified Excellent—
12 Very Good. The greatest offering in Ayr-
shire investment opportunities from leading
herds in the U. S., England, Scotland and
Canada.

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HIGHER HERD AVERAGE?

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management recommendations on low-cost
monthly progress reports. Ask
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IMPROVEMENT COOPERATIVE**
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STEEL AND ALUMINUM BLDGS.
FOR ALL PURPOSES

SECTIONAL UTILITY BLDGS.
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Easily erected • Quick delivery
Shipped Anywhere

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JOHN COOPER CO.
296 2nd St., Hackensack, N. J.

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Cow trainers help keep animals clean and dry.

"I'm Short On Bedding"

Ever said that? Here are ideas on
how to say it less often in the future.

IT'S NOT JUST the contents of the
haymows that have disappeared all
too rapidly on northeastern dairy
farms this winter—the bedding pile
has also diminished with alarming
speed. The price of straw climbed
right along with that of hay to new
levels in most areas. Before the
memory of a short bedding supply
recedes too far, let's look at some
possibilities of providing Old Bossie
with an innerspring mattress.

The University of Wisconsin
makes a strong case for electric cow
trainers, a coat-hanger-shaped de-
vice suspended above the cow's
shoulders and connected to an elec-
tric fence control. Research evidence
is backed up by the experience of
northeastern dairymen like Kimber
Spargo of West Winfield, New York.
It's questionable whether trainers
save a lot of bedding, but it's pretty
generally agreed that they help
make better use of what is available.
Cows are cleaner and drier, and
farmers who use "shockers" say that
cows don't lose production because
they "barnbreak" pretty quickly.

Loose Housing

Research workers at Penn State
conclude that daily removal of drop-
pings from the bedded area of a
loose housing barn reduces the
amount of bedding required. Another
straw saver in this type barn is the
practice of applying fresh bedding in
the afternoon rather than in the
morning. Absence of feeding and wa-

tering facilities in the bedded areas,
absence of partitions, and a rectang-
ular shape of the pen barn also con-
tributed to the lower bedding re-
quirements.

Free stall housing, with curbs be-
hind each stall, apparently also ap-
preciably reduces bedding require-
ments of loose housing. In this situ-
ation, most of the droppings land in
the alley between rows of stalls, or
are removed each day from the
stalls. Bedding that forms the pack
in the stalls lasts a long time with
little addition.

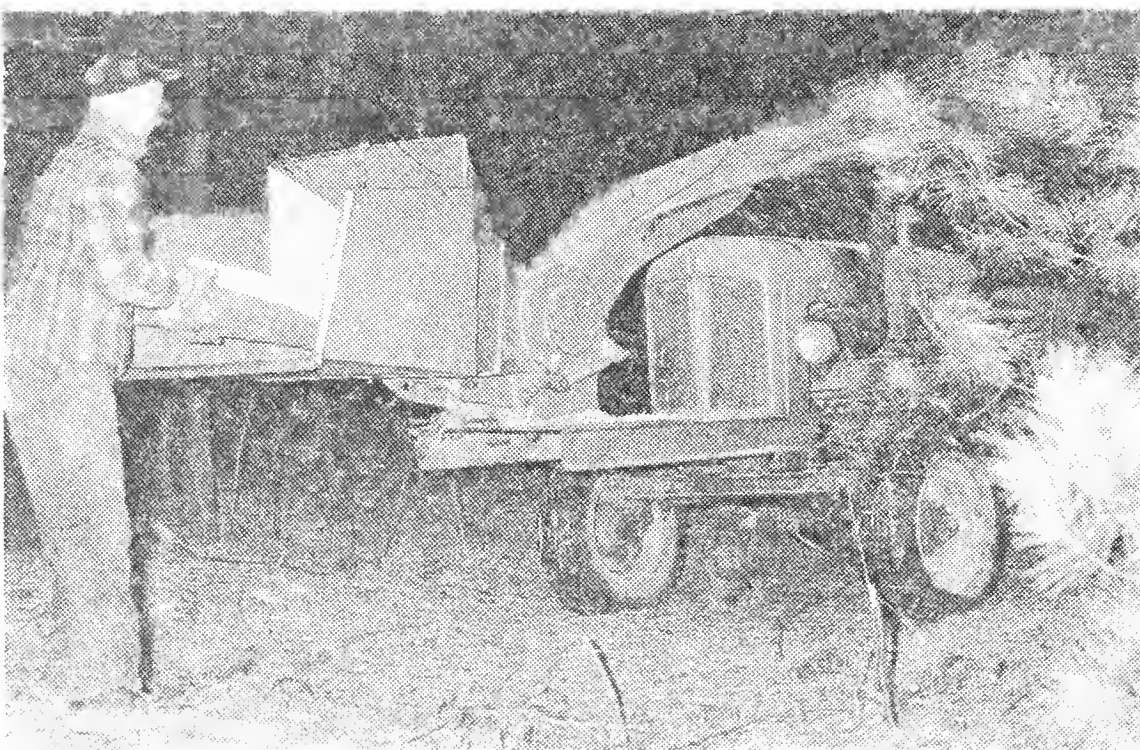
Also in the Keystone State, Clar-
ence Hack and Sons of Berwick have
used chopped cornstalks for the past
three years as part of their bedding
requirements for 70 head of milkers
plus young stock. They grew about
70 acres of corn in 1962, picked and
shelled 45 acres for grain.

They use a flail chopper with a
re-cut head to chop stalks into self-
unloading wagons that in turn de-
liver chopped material to the barn
floor. The chopper is the type with
swinging hammers; because their
land is free of stones, they can run
them two inches above the ground.

If cornstalks are dry, bedding can
be made this way pretty fast—but
wet stalks will heat when chopped
and piled. Best bet is to get 'em soon
after picking is done before fall rains
and snow soak things up.

The Hacks also use straw and a
little sawdust for bedding, but like

(Continued on Opposite Page)



Leo Jarkko, Fitchburg, Mass., uses a wood chipper to make bedding.



**POLLED
HEREFORDS**

FALKLANDS FARM PRODUCTION SALE

MONDAY, APRIL 8, 1963

Schellsburg, Pa.

6 BULLS—45 FEMALES—National and
International Championship Breeding.
Falklands Farm was Premier Breeder and
Exhibitor at the 1962 National where
they showed the Nat. Ch. Female and
Nat. Res. Ch. bull, with 1/3 interest in this
bull, FLF Domestic W 8 selling, plus 3 of
his sons and 20 daughters of Domestic
W. 14th who sired both these champions.
Also the service of Pawnee Beau Perfect
and P5 Pawnee Mixer 133rd, 1962 Int. Ch.
featured. Clean Pedigrees Federal Acc.
Bangs Free and TB Tested Herd.

WRITE FOR CATALOG

Falklands Farm

Schellsburg — — Pennsylvania

Twentieth Annual Sale

**NEW YORK HEREFORD
ASSOCIATION**

Animal Husbandry Pavilion,
Cornell University, Ithaca, N.Y.

SATURDAY, APRIL 20, 1963

Show 10:00 A.M. Sale 12:30 P.M.

Col. Morris Fannon, Auctioneer

ALL CLEAN PEDIGREES

25 Bulls & 30 Heifers

both horned and polled

JUDGE OF SHOW, TRUMAN LAWRENCE

**New York Spring Classic
BROWN SWISS SALE**

THURSDAY, APRIL 4, 1963 — 12:30 P.M.
CANANDAIGUA, N. Y.

45 REGISTERED BROWN SWISS 45

(All personally selected by Dale Homer, Hilliard, Ohio) Fresh cows and heifers—Bred heifers—Open yearlings—Heifer calves.

One of the finest selections ever made for a New York State Swiss Sale. A few of the highlights include an own daughter of Lady Louise of Judd's Bridge (EX) and sired by Hyperst Diamond Jubilee (EX), a bred heifer sired by Ostval's Nabob's El Captain and from a V.G. dam with 3 records from 641 to 692F, a 711± V.G. daughter of Lee's Hill Ski Master R and just a Jr. 4 year old; a 504± 3 year old daughter of Pearson's Odeon from a 770± dam; a V.G. 4 year old daughter of Comco Princess Ladd with her first record of 527 and 568 fat; a 601± daughter of Blackland Laird Prancer—2 other records of 564 and 528F. These are only a few of the top animals consigned to this sale. 30 day T.B. and blood tests, calfhood vaccinated, practically all eligible for interstate.

Catalogs on Request Lunch Available.

Trucking Arranged

HARRIS WILCOX, INC., Sale Mgrs. & Auctioneers
BERGEN, N. Y. Phone 146

STEWART BENEJOIT Sale Chrm., Massena, N. Y.

**New York Beef Cattlemen's
Association
Spring Sales**

'Cattle in their Working Clothes'

Bulls, Cows, Bred & Open Heifers,
Possibly a few Feeders

May 9 (7:00 P.M.)—Caledonia—

Empire Stock Yards

May 10 (1:00 P.M.)—Altamont—

Fair Grounds

FOR INFORMATION CONTACT:

RUSSEL PARKER, Mt. Morris

(Caledonia Sale)

MARGARET VIOLA, Fleischmanns

(Altamont Sale)

CURTIS PATRICK DISPERSAL
65 BROWN SWISS SELLING

April 6, 1963

Salem, New York — 12 Noon

A top production herd—Records to 702 Fat.
Certified—Accredited—Vaccinated

For Catalog write: Dale Homer

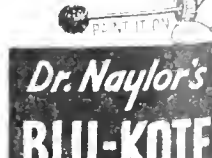
Box 25 Hilliard, Wis.

COWPOX*—RINGWORM

Teat Sores, Skin Abrasions

* Blu-Kote dries up cowpox lesions, controls secondary infection. Germicidal. Fungicidal, protective wound dressing. Quick drying... penetrating. 4 oz. bottle \$1.00 at dealers or mailed postpaid.

H. W. NAYLOR CO., Morris 2, N.Y.



(Continued from Opposite Page)

the cornstalk material. They find it hugs the concrete more tightly, spreads out better, and lasts longer than straw under cows in stanchions. Besides, there isn't any baler twine to tangle up in the beaters of the spreader.

Wisconsin Experience

Professor Duffee of Wisconsin says:

"We have found cornstalks quite satisfactory for bedding. First, we go over the field with a flail forage harvester where corn has been picked, shredding the stalks and dropping them back on the ground to dry out. After they have dried out for a short time we use the flail machine to pick them up and further shred them and haul them into storage.

"Our experience is that with hybrid corn the stalks are still high in moisture content at the time the corn is picked, normally late in October through November and early December. By using the shredder they dry out rather rapidly and then can be stored without the danger of spontaneous combustion or mildew."

Rubber mats are being used on some farms, but not many as yet. Both research workers and farmers report satisfaction with results and generally agree that a little bedding should be used with them. However, the most needed is considerably reduced.

Farm Experience

Archie Meek of Norwich, New York, tells us that he used six mats for about eight years; four years ago he put mats under all his cows. He reports using only 25 percent of the amount of bedding used previously and says that there are fewer cow injuries. He uses chopped straw or old hay (doesn't like either unchopped), and some sawdust — re-

ports best results when sawdust is used **with** a chopped material.

Before installing mats, he put chopped bedding on the platform when cows were out, then at night put a shovelful of sawdust just in front of the cows' back feet. With mats, he puts sawdust or a forkful of chopped bedding under the cows' rear feet once a day—that's all.

Allen Child of Malone, New York, also uses chopped straw, says it does a better job and spreads on fields better than baled straw. He too likes a mixture of chopped material with sawdust or shavings, says that "any mixture is better than only one material." He also comments that, "Bedding goes farthest when used often in lesser amounts."

Clayton White of Stow, New York, recommends always putting new bedding up front toward the stanchions, then pulling finer material back for the udder mat. He too uses straw and sawdust—if the latter is available.

Some farmers have considered owning their own wood chippers to make sawdust, but few have invested in such equipment. An exception is Leo Jarkko of Fitchburg, Massachusetts. After logging or cutting firewood, he cleans up brush and limbs by running them through a chipper. The chipper cost about \$1,700 mounted on his tractor. Does it pay? Jarkko says, "I've got to have bedding for my 29 cows and I like to keep my woodlot clean. But if you like to milk

cows better than logging, it won't pay off."

With the coming of more potent herbicides, the bugaboo of weed seeds in hay bedding becomes less important. In the spring of 1963 there isn't much poor hay around, but there will come a time when it will be more available to insulate Bossie from the cold, cruel concrete.

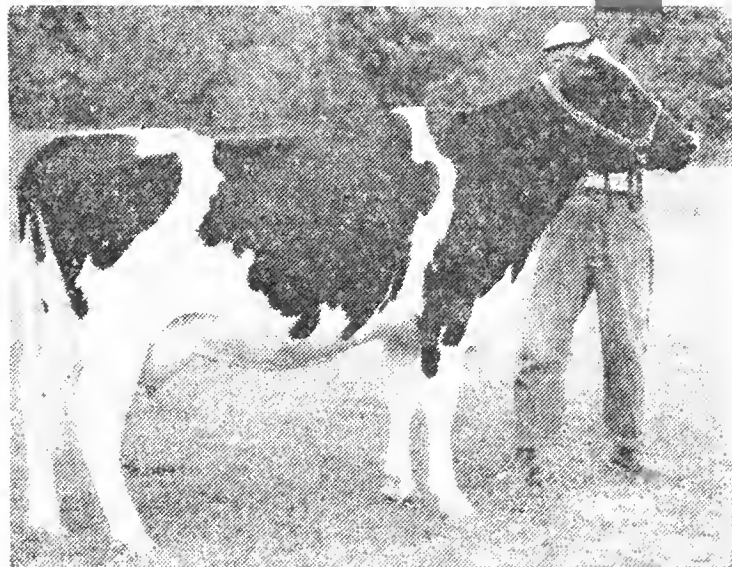
There is plenty of evidence that she needs such insulation—to produce more milk, to avoid mastitis, and to protect her health in general. Who knows, maybe someday she'll have an "electric blanket" built right into the concrete on which she sleeps! After all, some pigs are already in this class while in the farrowing area. — G.L.C.

Erwin Teneyck's build-up in milk production . . . 4,087 lbs. per cow per year . . . is represented in this graph.



Erwin Teneyck, Waterloo, New York

The Erwindale Farms herd, owned by Mr. Teneyck, recently became the first herd in Seneca County to exceed 600 lbs. BF per cow. The herd averages 631 lbs. BF per cow . . . an increase of 141 lbs. per cow since he started breeding with ABS about 10 years ago. "Good breeding, along with good feeding and management, have helped me reach my present average," he says. "My goal is 1,000 lbs. fat per cow." Shown below is "Ferry," an ABS Daughter in the Erwindale Farms herd. Her first three records are 13,700, 18,690 and 18,767 lbs. of milk . . . and the third is incomplete!



HEIFER RAISING

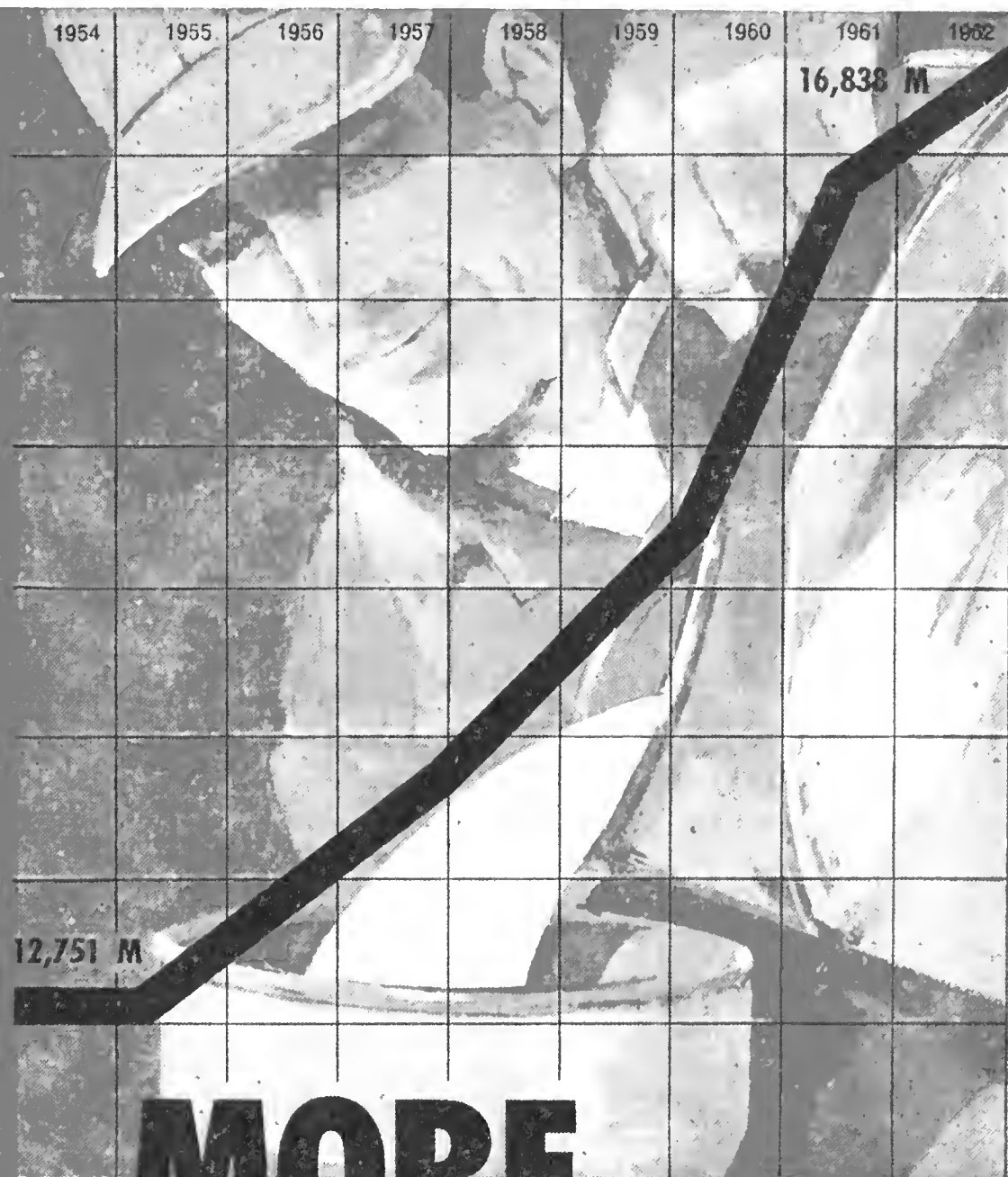
(Continued from Page 30)

We have a great opportunity to produce quality low-cost forage with the proper selection of grasses and legumes, and by maintaining a high state of fertility throughout the growing season.

The amount of feed required to grow dairy heifers varies with the age of the heifer and the quality of the forage itself. Ordinarily, bred heifers will require approximately 30 pounds of hay a day or the equivalent in ensilage. One lot of heifers I was finishing with hay weighed an average of over 1,200 pounds; each was eating almost 40 pounds of alfalfa hay per day. I find that they will do equally well on grass hay providing it is well fertilized, harvested early, and properly cured so as to obtain quality.

The opportunity of growing heifers as a major farm enterprise is available for many areas of the Northeast. However, it requires the integration of the industry all the way from the buying of heifers with known inheritance to their sale through a well-qualified marketer who will obtain a premium for replacements of high quality. At the same time, we must continue to develop a system of pastures and stored forage that will grow large animals in good flesh.

A new industry of major importance to the Northeast is awaiting development.



MORE MILK per cow
through **GENETIC BUILD-UP**

You'll get more milk per cow, less culling per herd — with the genetic build-up provided by steady use of Great Proved Sires from American Breeders Service. Each generation of ABS Daughters inherits a higher concentration of milk-making ability.

You can set higher herd production goals . . . and reach those goals . . . with consistent use of ABS Great Proved Sires.

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CATSKILL MTS. boarding house. Farm 25 acres, 30 guest. Going business. Goldschmidt, Cairo, N. Y.

NEED CASH? Earn it raising fishworms. Write: Oakhaven -6, Cedar Hill, Texas.

AUTOMOTIVE

AMAZING car offering. Limited supply of 1962 Ford Galaxies, \$895; 1962 Dodge full size sedans, \$795. Mechanically A-1, automatics, 6 cylinders, 4-doors. Deliveries arranged anywhere, bonded driver; \$50 plus gas and oil. 1961 models sold out fast due to tremendous response, so act quickly on these. Write, phone Emkay Motor Sales, 1046 Bedford Avenue, Brooklyn, N. Y. (212) ULster 7-0651. New York's largest cab fleet wholesalers. Ask about special free trip to New York.

COUNTRY BUSINESS

THRIVING COUNTRY store for sale. Owners selling due to death in family. Write Atlas Realty Service, 24 Hamlin St., Pittsfield, Mass.

PECANS

PECANS IN SHELL Stuarts, five pounds, \$3.50. Small mixed seven pounds, \$3.50 Postpaid. Joy Acres, Windsor, Va.

AUCTION SCHOOL

LEARN AUCTIONEERING. Free catalog Missouri Auction School, 1330 Linwood, Kansas City 9-X33, Missouri.

FELLER'S AUCTIONEERING College. Free catalog, 225 South Schuyler, Kankakee, Illinois. **LEARN Auctioneering,** term soon. Free catalog, Reich Auction School, Mason City 11, Iowa.

AUCTION SCHOOL. Ft. Smith, Ark. Free catalog. Also Home Study Course.

PAINTING

BARNs PAINTED New high pressure spray method cuts labor costs fifty percent. Paint is non-poisonous—never peels—lasts for years. No money down—5 years to pay—insured. For free estimate send card with directions to farm. Vaughan Co. East Avenue, Johnstown, New York.

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SEND WOOL to us for beautiful, warm blankets. Free literature. West Texas Woolen Mills, 443 Main, Eldorado, Texas.

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AUCTIONEERS—Livestock and farm auctions. Complete auction and pedigree service available. Harris Wilcox, Phone—Bergen 146, N. Y.

FOR TOPS IN Livestock Marketing—Regular weekly sales and farm auctions; Empire Livestock Marketing Cooperative.

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ARTIFICIAL BREEDING Technicians. Are you interested in a position with the fastest growing A-1 Organization in the U. S.? Several choice locations are still available. Write to — Curtiss Breeding Service Inc., Danny Weaver, District Manager, Little York, N. Y.

RABBITS

RAISE ANGORA, New Zealand Rabbits, Fishworms on \$500 month plan. Free details. White's Rabbitry, Mt. Vernon, Ohio.

EARTHWORMS

FREE PICTURE FOLDER "How to Make \$3,000 Yearly, Sparetime, raising Earthworms!" Oakhaven-5, Cedar Hill, Texas.

REAL ESTATE WANTED

WANTED FARMS, land, buildings, camps, radius 30 miles of Pittsfield, Mass. Write Atlas Realty, 24 Hamlin St., Pittsfield, Mass.

TARPAULINS

CANVAS TARPULINS—Direct from factory—nylon reinforced eyelets, medium weight. Cut size—7x9 feet, \$5.67; 8x12 feet, \$8.61; 12x14 feet, \$15.12. Write for complete list of sizes and samples. Our 67th year. Eureka Tent & Awning Co., Inc., Binghamton, New York

CEDAR POSTS

CEDAR POSTS—all sizes. Pressure treated & cedar poles for barns & sheds. Rustic fencing. M. D. Snell & Son, Marcellus, N. Y. OR 9-3121. Closed Sunday.

4,000 CEDAR POSTS for sale. All sizes mixed. Reasonable price. Write or call 247-8155. Jean Guy Quenneville, Brandon, Vermont.

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PROTECT YOUR BERRY CROPS, vegetables from birds, animals with cheesecloth, 100 yards by 48", convenient 10 yard lengths, \$7.50 prepaid, 50% less mill price. Joseph Hein, 120F Eton Road, Thornwood, N. Y.

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PURE VERMONT MAPLE Syrup — fancy grade \$5.50 per gallon, \$3.25 per half gallon, plus postage. James F. Burbank, Chelsea, VT. **FANCY MAPLE SYRUP,** butter, candies. Reasonable prices. Elliott Homestead, New Kingston, N. Y.

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OLD COINS BOUGHT Illustrated catalog 25c. Hutchinson's Box 6256 Philadelphia 36 Pa. **WORLD'S LOWEST PRICE** list—U.S. Mini and used, priced per one get yours now free. Wm. Rice 10230-B Martinique Dr. Perrine 1 Fla.

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STRAWBERRY PLANTS — Virus free—Slate inspected. Seven varieties dug fresh to order. Special on orders received prior May 15th — 100 assorted varieties, our choice, \$2.50 postpaid. Free list and growing instructions. Facer Farm Market, Route 96, Phelps, N. Y.

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BERRY PLANTS, roots, Temple, Stelemaster, Catskill, Sparkle, Robinson, Vermillion, Empire and Fairfax, 25-\$1.45; 50-\$2.00; 100-\$3.25; 1000-\$19.00. Asparagus 25-\$2.00; 50-\$3.00; 100-\$1.25. Rhubarb, Victoria, 6- \$1.25; 12-\$2.00; 25-\$3.50. Horseradish 12-\$8.50; 25-\$1.50; 100-\$3.60 prepaid. Price list on request. Field Plant Farm, Sewell, New Jersey.

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FIELD SEEDS — Medium Red Clover—\$30.00 Bu., Timothy \$10.00 Bu., Certified Narragansett Alfalfa \$10.00 Bu., Cert. Garry Oats \$1.85 bushel. Complete line of Northern grown, winter hardy seeds, let us help you select the varieties best suited to your farm. Ask for our early season price list. Complete custom seed cleaning service. Alton L. Culver & Sons, R. J. Trumansburg, New York. Phones 387-5300, 387-3512. Located 2 1/2 miles South of Mecklenberg, New York.

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ADDITIONAL CLASSIFIED ADS
(Continued on Page 40)

3 POSITIVE STEPS

1 CHLORINATED ALKALAI
2 ACIDIFIED RINSE
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Britex

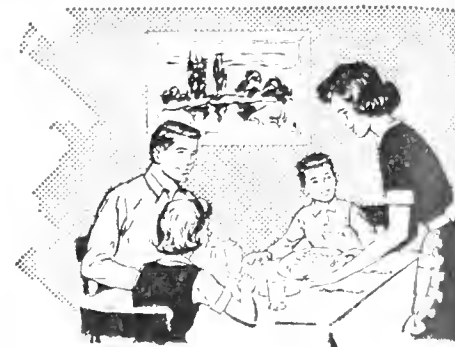
SANITATION PROGRAM

BRITEX CORPORATION
Boston, Massachusetts



'Round the kitchen

with Alberta Shackelton



EASTER BREAKFAST and dinner are always special occasions, so make these meals really say "Happy Easter" this year. For breakfast, have handy a large serve-yourself pitcher of chilled orange juice, and serve your best puffy omelet or scrambled eggs with broiled thin ham slices, a delicious blueberry coffee cake, and plenty of steaming hot coffee, with milk for the kiddies.

Here are some suggestions for a dinner-after-church on Easter.

Frosted Apricot Nectar

(apricot juice with dip of lime sherbet)

*Glazed Roast Leg of Lamb

Whole small new Potatoes in cream sauce with grated raw carrot
Asparagus spears with toasted slivered almonds OR

Frenched Green Beans with Mushrooms

Relish Platter

Brown and Serve Rolls

*Easter Egg Dessert OR

Fresh Coconut Layer Cake OR

Strawberry Meringues

ROAST LEG OF LAMB WITH CURRANT JELLY GLAZE

For a lamb leg roast, you may choose a whole leg weighing 9 or more pounds and including the sirloin end; for a smaller family, you may wish to have 3 or 4 so-called sirloin chops cut off for later broiling or braising, leaving a 5 to 6 pound roast to serve 8 people.

If you want to decorate your finished roast with a paper frill, have the butcher cut the leg bone short and trim it back to expose the bone. This is called a Frenched leg. Otherwise, the end bone is usually cut off, and the meat wrapped around to make a compact American-type cut. Leave the "fell" or paper-like covering on the leg. It helps keep the leg in shape and retain the juices. If you would like to try a stuffed leg of lamb, have the butcher bone the leg.

Season with Herbs

To roast leg of lamb, season with salt and pepper. If you wish, rub the surface with a mixture of your favorite herbs—rosemary, paprika, and sweet basil are popular. Place the leg, skin side up, on rack in a shallow pan. If you use a meat thermometer, insert it so it reaches the center of thickest part of the leg and does not rest on fat or bone.

Place in a moderate oven (325°). Do not cover and do not add water. Allow 30 to 35 minutes per pound for a medium cooked roast, or cook until thermometer registers 175° to 180°. A 5 to 6 pound roast will be done in 3 to 3½ hours.

About 30 minutes before roast is done, remove from oven and brush top with softened currant jelly. Repeat this two more times before roasting is completed. Remove roast to a heated serving platter and garnish with minted pear halves and fresh parsley or watercress. Or, if you prefer a mint sauce, place a grapefruit shell filled with a tart mint sauce on the platter with the roast.

"EASTER EGG" DESSERT

Combine 2 squares unsweetened chocolate with 2 tablespoons butter, and stir over hot water until melted. Combine 2 tablespoons hot milk or water and ¾ cup confectioners' sugar and add to chocolate mixture, stirring well. Stir in 1½ cups shredded cocoanut. Press mixture onto bottom and sides of a buttered 9-inch pie pan. Chill until firm.

At serving time, fill crust with oval or egg shaped mounds of pistachio, strawberry or pink mint, and French vanilla ice creams. To serve, cut pie into wedges, removing servings to dessert plates with a pie server.

Hot Cross Buns for Good Friday

This is the season for hot cross buns. Makes these for Good Friday and freeze some to be reheated later.

HOT CROSS BUNS

¾ cup scalded milk
½ cup sugar
½ cup shortening
¼ teaspoon salt
1 package active dry yeast
¼ cup warm water
3 eggs, beaten
3½ to 4 cups all purpose flour
¾ teaspoon cinnamon
¼ teaspoon nutmeg
¾ cup seedless raisins

Combine scalded milk, sugar, shortening, and salt, and cool to lukewarm. Soften the yeast in the warm

Place about 2 inches apart on a greased baking sheet or side by side in a greased 8 or 9 inch square baking pan. Brush tops lightly with melted butter or slightly beaten egg white, cover, and let rise until about double in bulk. Just before baking, carefully cut a cross in top of each bun with greased or floured scissors. Bake in a moderate oven (375°), 12 to 15 minutes or until done and lightly browned.

Cool slightly and outline cuts with

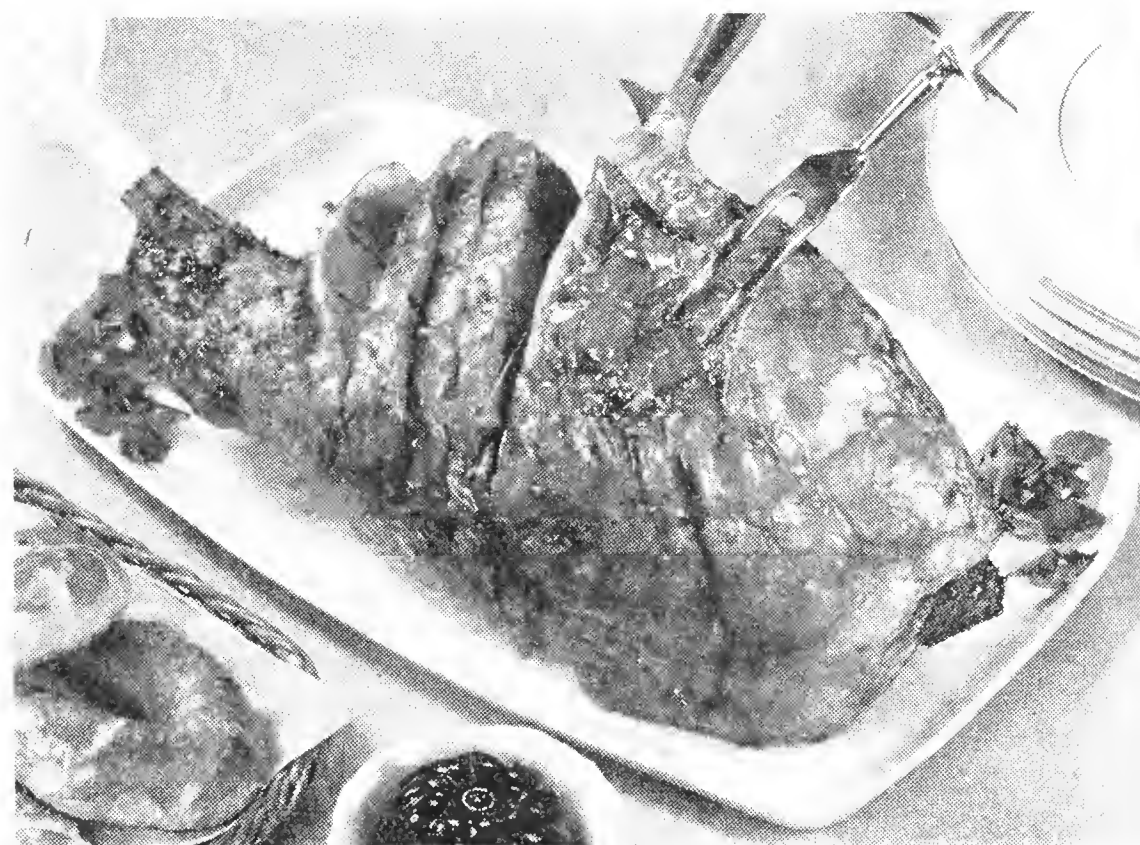


Photo: American Meat Institute

Let this elegant roast leg of lamb reign as the star attraction of your Easter dinner this year.



Photo: J. Walter Thompson

Hot cross buns are at their delicious best when served piping hot. Try our recipe during this Lenten Season.

water and add to the cooled milk mixture. Add the beaten eggs and about one-half of the flour mixed with the cinnamon and nutmeg. Stir in the raisins and just enough of the remaining flour to make a soft dough.

Turn dough onto a lightly floured board and knead lightly. Place in a greased bowl, brush top lightly with melted fat, cover, and let rise until double in bulk. Punch down dough and remove to floured board. Roll or pat out to about ½ inch thickness. Cut in 2 to 2½ inch rounds and form each round into ball.

vanilla-flavored confectioners' frosting, or sprinkle generously with sifted confectioners' sugar. Makes 2 to 2½ dozen buns.

You may use currants in place of the raisins if desired, and the recipe without the spices and raisins is suitable for various sweet breads.

For the Kitchen Bookshelf

"FOOD FOR THE YOUNG COUPLE" (HG-85) is the title of a new publication prepared by U. S. Department of Agriculture scientists to help newlyweds, managing a home for the first time, plan a well

balanced diet with a limited budget. Bulletin gives special emphasis on how to save time and energy and includes sample menus, weekly food plans, a list of minimum kitchen tools and utensils, and suggestions on food planning during pregnancy. Single copies of this bulletin are free from the Office of Information, U. S. Department of Agriculture, Washington 25, D. C.

"MONEY-SAVING MAIN DISHES" includes recipes and suggestions for about 150 main dishes that are easy to make, economical, and hearty. For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. for 20 cents (coins only, no stamps).

"PERFECT ENDINGS" — a new dessert cookbook with more than 300 recipes. Available for \$1.00 from Nestle's Perfect Endings, P. O. Box PP, Garden City, N. Y.

Note to Readers

Plans are under way to collect recipes which have appeared in AMERICAN AGRICULTURIST over the past years in a "Round the Kitchen Cookbook." Buying, meal planning, cooking, baking, and serving hints will also be included. Drop me a note and tell me what you think of this idea and what you would like to find in the cookbook. Please send your notes to Mrs. H. E. Shackelton, 103 Kay St., Ithaca, N. Y.

NEW AND DECORATIVE

7198



7198. A pleasure to embroider this handsome pair. Display pictures in any room. Children love them. Transfer of two 9½ x 12-inch designs, directions. 25 cents.

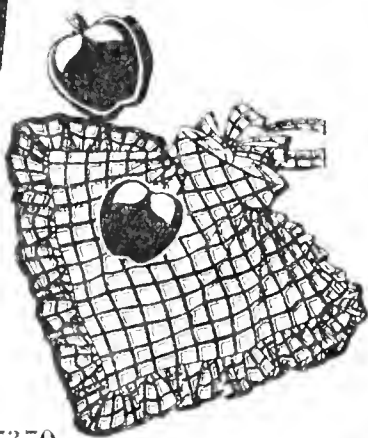
7370. Dainty half apron. Make one with apple pocket, the other with butterfly; make potholders to match pockets. Transfer, printed pattern, cutting chart. 25 cents.

7396. Loop stitch pillows in three colors. Easy to crochet. Cut loops when finished, makes thick pile. Crochet directions for 14-inch round pillow, 12-inch square. 25 cents.

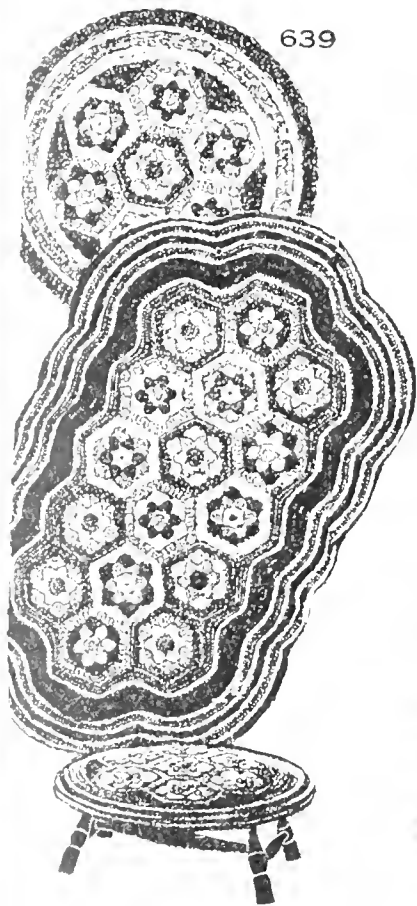
7396



7370



639



639. Rug and stool cover made by joining flower hexagons in easy crochet. Finish each by adding crocheted border. Directions for set in rug cotton or wool. 25 cents.

7413. Flowers of the 50 states to embroider on separate blocks. Join blocks for quilt; group for coverlet panel or frame your favorites as pictures. Transfers of all 50 state flowers. 25 cents.

533. Turn plain linens into luxury items by adding edgings of dainty crochet. Pineapple and spider-web designs are easy to do. Directions for 7 edgings from ½ to 4¼ inches wide. 25 cents.

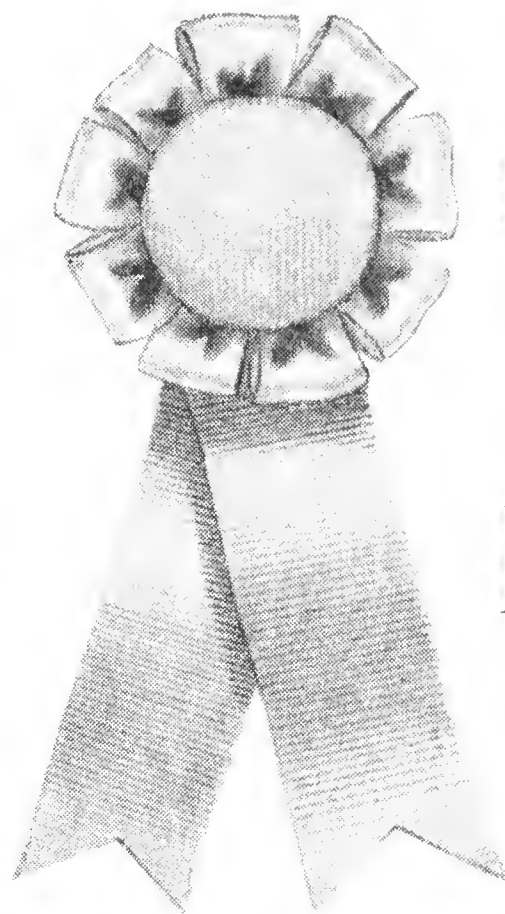
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533

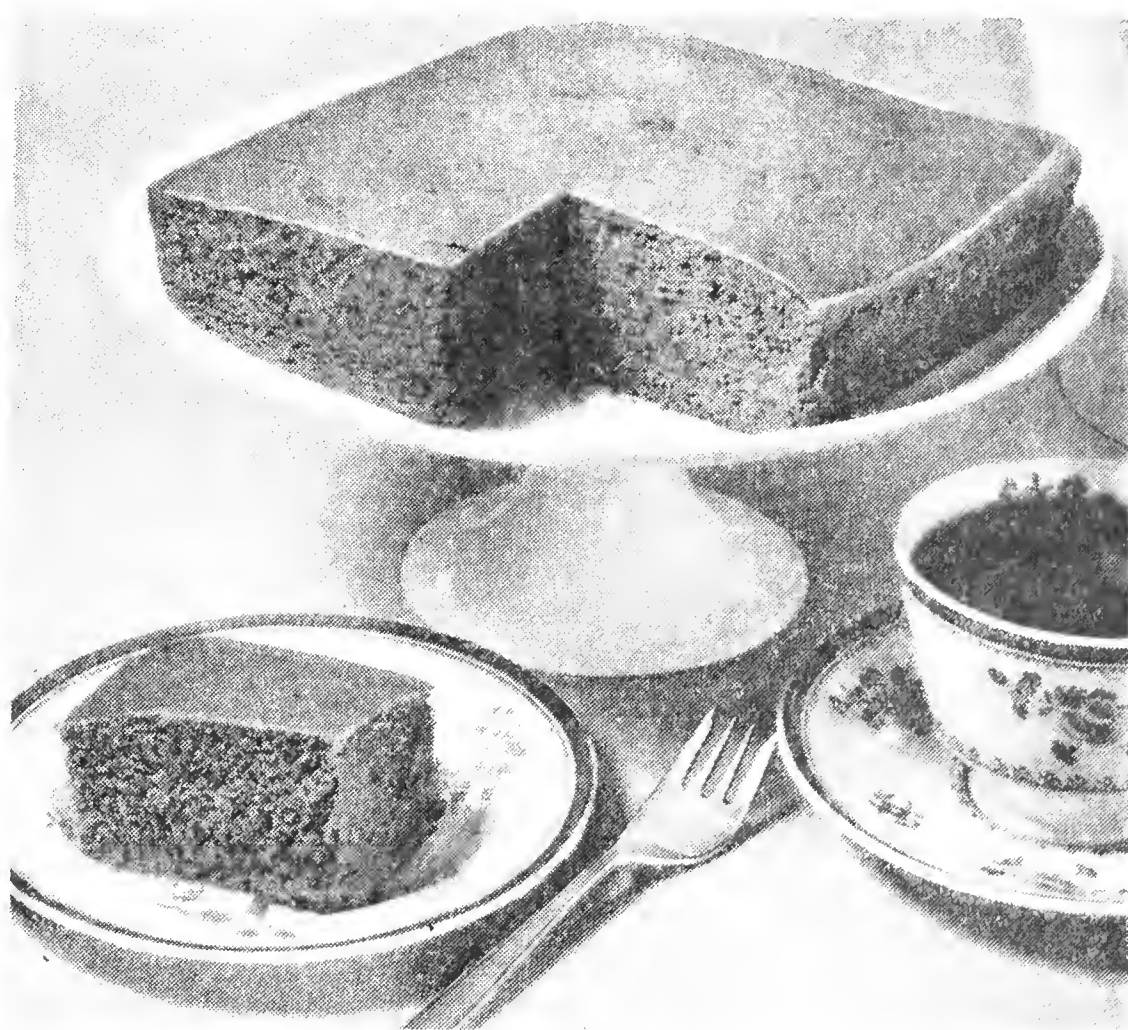


Needlework Patterns are **TWENTY-FIVE CENTS** each. Add 10 cents for 1st-class mailing. Send orders (with coin) to: **AMERICAN AGRICULTURIST 257, Needlework Service, P.O. Box 162, Old Chelsea Station, New York 11, N. Y.** Send 25 cents for our Needlecraft Catalog. See windfall of designs to knit, sew, weave, embroider, and quilt; fashions, home furnishings, too, **PLUS** a free pattern printed in the book.



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IN THE NEW YORK GRANGE GINGERBREAD CONTEST



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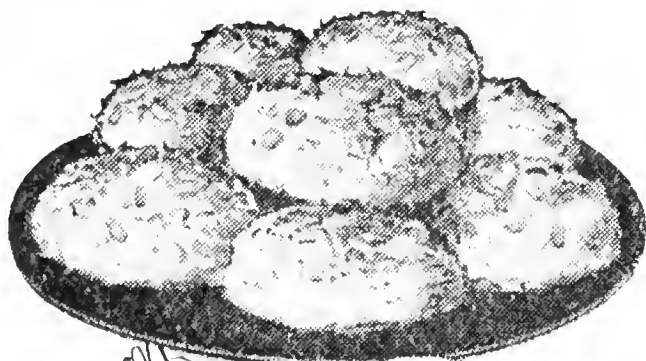
the liquid spice!

GOLD LABEL...light and mild-flavored
GREEN LABEL...dark and full-flavored



COCO-NUTTY Candy Cookies!

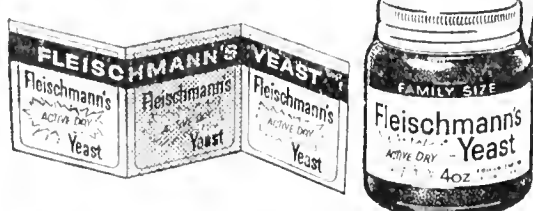
Bake 'em quick
and easy with
Fleischmann's
high high-rising
yeast



CANDY COOKIES (makes 16)

3/4 cup milk	1/3 cup chopped hard
1/2 cup sugar	lemon drops
1 teaspoon salt	2 teaspoons grated
1/3 cup Fleischmann's	lemon rind
Margarine	2 eggs, slightly beaten
1/4 cup warm water	3 cups unsifted flour
1 package	3 cups flaked coconut
Fleischmann's	1 cup chopped
Active Dry Yeast	peanuts

Scald milk; stir in sugar, salt and Fleischmann's Margarine; cool to lukewarm. Measure warm water into large mixing bowl. Sprinkle in Fleischmann's Yeast; stir until dissolved. Add lukewarm milk mixture, lemon drops, lemon rind, eggs and flour. Stir until thoroughly mixed. Combine coconut and nuts, spread out on large sheet of waxed paper. Drop batter by tablespoons onto coconut mixture and roll. Place on well-greased baking sheets. Cover; let rise in warm place, free from draft, until doubled in bulk, about 1 hour. Bake in moderate oven (350°F.) 20 min.



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The AA Clothes Line

4732. Scarf-tied jacket; two skirts, slim and gored. Printed pattern in Half Sizes 12½-22½. Size 16½ slim skirt and jacket takes 4 yards 39-inch fabric. 35 cents.

4526. Pleat-pretty with yoke and panels. A little miss will love it. Printed pattern in Child's Sizes 2, 4, 6, 8. Size 6 takes 2¼ yards 35-inch fabric. 35 cents.

4518. Casual perfection — crisp collar, raglan sleeves, gored skirt. Printed pattern in Misses' Sizes 12-20; 40. Size 16 takes 4¼ yards 39-inch fabric. 35 cents.



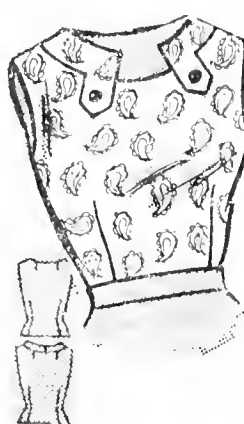
4732
12½-22½



4518
12-20; 40

4526
2-8

4522
10-18



9354
12½-22½

9182
34-48



4674
14½-24½

9182. Smooth sheath with bias-band trim at neckline; simple bolero. Printed pattern in Women's Sizes 34-48. Size 36 dress takes 3¼ yards 35-inch fabric; bolero, 1½ yards. 35 cents.

4522. Fitted overblouse and slim skirt—a pretty summer duo. Printed pattern in Misses' Sizes 10-18. Size 16 outfit takes 3½ yards 35-inch fabric. 35 cents.

9354. Trio of blouses to triple your wardrobe. Printed pattern in Half Sizes 12½-22½. Size 16½, side-buttoned style takes 1½ yards 35-inch fabric; scooped, 1¾ yards; tabbed, 1½ yards. 35 cents.

4674. Cool sundress with choice of skirts, cape collar to button on. Printed pattern in Half Sizes 14½-24½. Size 16½ outfit takes 5½ yards 35-inch fabric. 35 cents.

PATTERNS are THIRTY-FIVE CENTS each. Send orders (with coin) to: **AMERICAN AGRICULTURIST**, Pattern Department, Box 42, Old Chelsea Station, New York 11, New York. Please write name, address, pattern size and numbers clearly. Send **FIFTY CENTS** (in coins) for our spring "Fashions to Sew" catalog. After reviewing the 304 design ideas, choose one pattern as our **FREE** gift to you. To get the pattern of your choice, mail the coupon inside the catalog.

What's Your Hobby?

Hobby Letters From Our Readers

GIFT SHOP

After my oldest daughter was married and the other three were away from home a lot or busy with their own interests, I felt lost and decided to take up needlework. I bought some books on knitting, crocheting, tatting, etc., and also got help from my friends.

At first I practiced on baby clothes for my daughter's children—but they couldn't use them as fast as I made them. So friends and neighbors began to buy my carriage robes, sweaters, layettes, and booties, etc. That was the beginning of "Lillian's Gift Shop."

Many of the items I sell are used as shower gifts. The favorite is a baby's sweater set (the most popular color is green, with yellow second). I keep about 60 sweater sets



Mrs. Thomas Robinson of Sun-E-Hill Farm, Champlain, New York, is the proprietor of "Lillian's Gift Shop." Her needlework hobby has turned into a profitable home business.

on hand all the time, but that is no problem as I can make a set in one evening.

I've received orders from various places, from New England to Ohio, as well as from nearby towns. I also make and sell doilies, table runners, aprons, and stuffed dolls. I exhibit at fairs, and have won many prizes.

I am always looking for old books on crocheting or knitting. — Mrs. Thomas Robinson, Sun-E-Hill Farm, Champlain, N. Y.

WINE GLASS COLLECTOR

I collect old fashioned small wine glasses, similar to the cordial glasses used today. They are usually made in two or three pieces and fused together. They are very hard to find, and once in a while I pick one up at a rummage sale. I have a collection of about twenty and alternate them monthly on a three-tiered shelf in my kitchen window. I started with three glasses that belonged to my great-grandmother. I now have some with grapes etched on, one thumb-print and several plain ones of different sizes. — Abbie D. Gadbois, 159 Woodward Ave., E. Providence, R. I.

HAS MANY INTERESTS

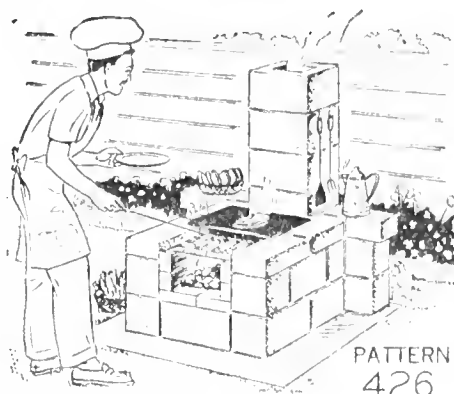
My hobbies are collecting salt and pepper sets, embroidery, and making rag rugs from all kinds of materials. I also exchange house plant slips, seeds of hardy flowers, and leaves of African violets. — Mrs. Ernest Van-Volkenburg, Sr., 56 Wojtje St., Schenectady 7, N. Y.

LIKES TO COLLECT

I am always on the lookout for new stamps and have quite a collection. There have been over 50 new ones this past year.

I also have a collection of pitchers, over 150 in all, and many of them are from other countries.

My pet hobby, however, is sea shells. I have over 100, from nearly every country. Some of them I picked up myself, as I've been collecting for over 50 years. I always say that man made my pitchers, but God made my sea shells. — Mrs. Elsie A. Welk, 1106 Roanoke Ave., Riverhead, L. I., N. Y.



HOME WORKSHOP

DO YOU need an outdoor fireplace for the picnic season ahead? This easy-to-build barbecue is made of standard size concrete blocks and lined with fire brick. Let the whole family join in the fun of building it. Pattern 126, which shows every construction step and lists materials re-

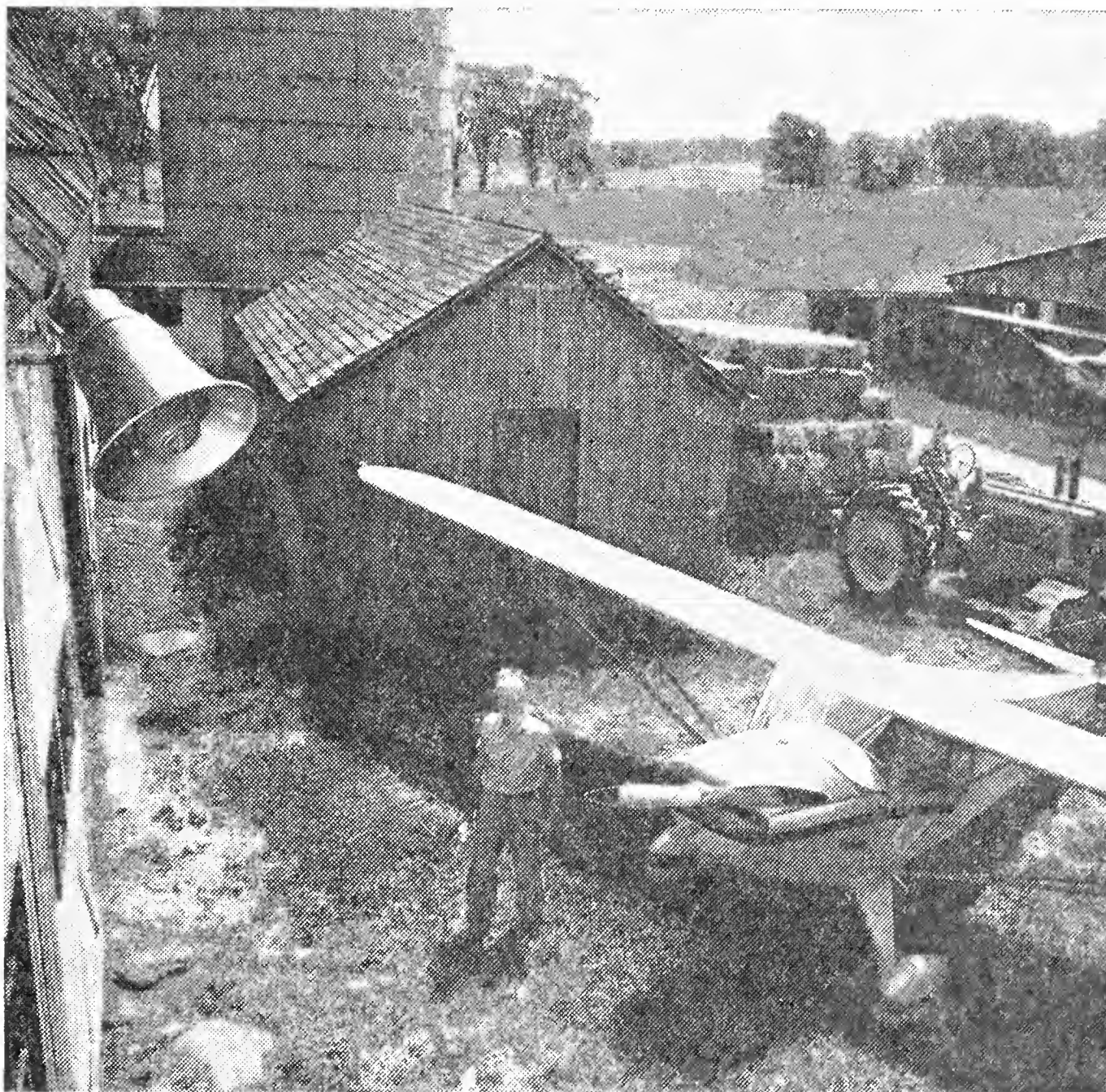
quired, is 35 cents. Also this pattern is one of four in the Homestead Improvement Packet No. 30, which sells for \$1.00.

Send orders to AMERICAN AGRICULTURIST, Pattern Dept., Bedford Hills, New York.

HOUSEWIFE'S SNAFU

By Sally Goth

If I choose a fabric for living room drape,
Find a chic girdle that keeps me in shape,
Select lovely china and crystal with care,
Discover a tint to hide my gray hair,
Inevitably when I want to buy more
Fate almost always has failure in store.
In spite of precautions I tried hard to take,
The item I need they no longer make.



Milford Bray, shown with two features of his modern farm—private planes and Farm Interphone

"Farm Interphone saves me at least 50 hours a month"

Flying farmer Milford Bray of Arcade, New York, says,

"I consider my Farm Interphone a necessity for running a modern farm. I figure that the Interphone saves me and my help over 50 hours a month. Our farm is spread out all over the place—in fact, the barns are located about 800 feet from our farmhouse across the main highway. Farm Interphone has tied our farm together. No more time-consuming trips to talk on the phone or to bring the family together for meals. I only wish we had had the Farm Interphone sooner."

To find out more about Farm Interphone, just call your Telephone Business Office or ask your telephone man.

Here's how Farm Interphone can help you

1. Saves you trips between house and farm buildings.
2. Lets you talk "hands-free" wherever you are.
3. Helps you hear that ring when you're outdoors.
4. Acts as an "ear" in your barnyard and farm buildings.



New York Telephone

Part of the nationwide Bell Telephone System

LOCK DOWELLING

SURE GRIP

SURE STEP

GREAT for GRASS

AIRTIGHT! PRESSURE-TIGHT!
ACID-RESISTANT! HEAVY-DUTY!

Unadilla dowelled, wood stave silos are great for grass. The Unadilla has new, extra heavy, patented front lugs to hold greater silage loads. Hundreds of steel dowels knit staves into one sturdy unit. Wood is not affected by silage juices. Now your Unadilla can be factory-creosoted for even longer life. Creosote forms a permanent exterior finish. Send for catalog and facts on Easy Payment Plan.

Unadilla Silo Co., Box B-43, Unadilla, N.Y.

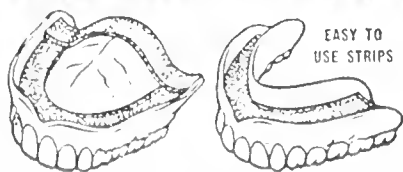
UNADILLA SILOS

Here's The Way To Curb A Rupture

Successful Truss That Anyone Can Use on Any Reducible Rupture, Large or Small

If you must wear a Truss for Rupture, don't miss this. A Post Card, with name and address, will get you FREE, and without obligation, the complete modernized Collings Plan of Reducible Rupture Control. Now in daily use by thousands who say they never dreamed possible such secure, dependable and comfortable rupture protection. Safely blocks rupture opening, prevents escape, without need of harsh, gouging pad pressure. Regardless of how long ruptured, size, occupation, or trusses you have worn. TRY THIS, and send your Post Card today to Capt. W. A. Collings, Inc., 5 Bond St., Adams, N. Y. Dept. 717Y.

EAT ANYTHING WITH FALSE TEETH!



Trouble with loose plates that slip, rock, or cause sore gums? Try Brimms Plasti-Liner. One application makes plates fit snugly without powder, paste or cushions. Brimms Plasti-Liner adheres permanently to your plate; ends the bother of temporary applications. With plates held firmly by Plasti-Liner, **YOU CAN EAT ANYTHING!** Simply lay soft strip of Plasti-Liner on troublesome upper or lower. Bite and it molds perfectly. Easy to use, tasteless, odorless, harmless to you and your plates. Removable as directed. Money-back guarantee. At your drug counter. \$1.50 reliner for one plate; \$2.50, two plates. Plasti-Liner, Inc., Dept. P-5, 1075 Main St., Buffalo 9, New York.

BRIMMS PLASTI-LINER
THE PERMANENT DENTURE RELINER

Plagued Day And Night with Bladder Discomfort?

Such a common thing as unwise eating or drinking may be a source of mild, but annoying bladder irritations—making you feel restless, tense, and uncomfortable. And if restless nights, with nagging backache, headache or muscular aches and pains due to over-exertion, strain or emotional upset, are adding to your misery—don't wait—try Doan's Pills.

Doan's Pills have three outstanding advantages—act in three ways for your speedy return to comfort. 1—They have an easing soothing effect on bladder irritations. 2—A fast pain-relieving action on nagging backache, headaches, muscular aches and pains. 3—A wonderfully mild diuretic action thru the kidneys, tending to increase the output of the 15 miles of kidney tubes. So, get the same happy relief millions have enjoyed for over 60 years. For convenience, ask for the large size. Get Doan's Pills today!



Photo: Amer. Ass'n. of Nurserymen

Home Plantings

By NENETZIN R. WHITE

DON'T THE plantings in the above picture make a perfect setting for the house? Notice the flowing line of the junipers, which adapt so well to a slope and grade change, the dark green of taxus to mark the front entrance, and the pleasant intimacy of the rock garden with its background of stately pines. And, last but not least, see how the delightful flowering trees help drop the height of the house and give privacy to the back living areas. There is no exact symmetry to this planting arrangement, for symmetrical designs should be left to formal gardens.

Let's discuss evergreens and how to use them. All home landscapers need some evergreens for all-year color to prevent a drab look in winter. Pines, spruces, and firs are ideal for backgrounds, and planted in informal rows or groups to frame a view, or as accents. Notice the picturesque white pine in the back of the picture. Doesn't it just seem to make the house "belong"? The medium size evergreens can also be used in the ways mentioned, and in this group are hemlocks, junipers, and arborvitae.

Dwarf evergreens can be used anywhere, but are especially good around the foundation of a house. They provide different shades of green all year and help to mark the entrances and paths to your home. Don't use evergreens in a long, straight line around your foundation, but swirl a group or two at corners, and if possible, also use some deciduous shrubs or small, flowering trees.

Ground Covers

Ground covers help to keep your plantings looking neat and finished. If broad-leaved evergreens, holly, and boxwood are hardy in your area, they are delightful; if not, taxus, junipers, arborvitae, and hemlocks are available in many varieties. In general, plants with softer, more flowing lines are preferable to the globe and pyramidal ones. Occasionally, too, a shrub such as pyracantha can be trained to grow on a trellis and is most charming.

Do find a spot for a few small, flowering trees. They are magnificent when in flower; they stay shapely and pretty all summer, and there are several varieties that bear colorful fruit. Shadblow (amelanchier) is native to the Northeast and is covered with snowy, white blossoms very early in the spring. Redbud (cercis), dogwood, magnolias, and many others are suitable for

most locations. Flowering crab-apples and hawthorn can be found in delightful shapes and colors. Most varieties fruit heavily and are as attractive in the fall as they are in the spring.

Think and plan before you plant, and don't try to copy someone else. You will be far happier with the end result if the planting arrangement is suited to your home and grounds.

The Spring Princess

By Hazel B. Corliss

BECAUSE of its elevated tree-covered surroundings, this section of southern Vermont, which includes our small farm, has long been known as "The Basin." During the long winter, the Good Earth in The Basin is like a beautiful sleeping Princess, warmly covered with blankets of ermine snow. In March, Mother Nature often gives her an extra cover, deep-lined and downy, against the final overtures of Jack Frost.

Then, slowly but surely, the sleeping Princess begins to awaken. With the warm encouragement of Father Sun, one by one, she throws off the white blankets and tosses them into the waiting brook.

Still in a far away dreamland, she hears the raucous caws of the crows, just returned from the Southland. Then, she hears the vibrant music of March winds in the utility wires, singing along the country road, and the tinkle of maple sap dripping into buckets.

For a little longer, Jack Frost continues to lull her to a solid sleep each night, but morning finds her cluding his icy grasp. The Prince Charming of Spring comes to woo her with soft breezes. With a crown of snowdrops in her streaming hair, and delicately perfumed arbutus hidden in her bosom, she becomes a Spring Princess.

As the weeks pass, the remaining snow cover becomes just an old patchwork quilt with honeycomb stitching. The swollen brook roars jubilantly, rushing to greet the spawning fish in the river below and fulfilling the angler's dream.

In April, the Princess is fully awakened by the poignant chorus of the peepers in the brook. Along with the budding trees, she is now ready to don the robes of royalty. Piece by piece, Mother Nature spins her a sheath of rich green velvet, embroid-

(Continued on Opposite Page)

ADDITIONAL CLASSIFIED ADS

(Continued from Page 35)

SITUATION WANTED

RETIRED LADY, good cook, housekeeper, desires position in womanless farm, country home. Drives car. Box 514-PT, American Agriculturist, Ithaca, New York.

BEEES AND BEE SUPPLIES

BEEES increase seed and fruit yields. 100 page book with 175 pictures @ 75c postpaid, explains everything from starting to selling honey. Free Factory catalog. Stingproof equipment saves you 25%. Walter T. Kelley Co., Clarkson, Kentucky.

PACKAGE BEES. My northern-bred Caucasians are very gentle and productive. They will produce your honey and pollinate your crops. Two pounds \$1.85; three pounds \$6.00, queen included. Parcel post \$1.25 per package. None COD. Conner Apiaries, Stockton, New Jersey.

PHOTOGRAPHIC SERVICE & SUPPLIES

GREGG COLOR FILM Service, Post Office Box 543, Little Falls, N. Y. Kodacolor Film developed and printed. 8 exposure \$2.25; 12 exposure \$3.25; 35MM Kodachrome processed and mounted—20 exposure \$1.15; 36 exposure \$1.75. 8 MM movie processed \$1.15. Magazine \$1.00.

WANTED TO BUY

WANTED OLD GUNS especially Winchesters, describe and price in first letter. L. A. Hart, Route 46, Hackettstown, N. J.

DOG TREADLE Butter Churn. Elliott R. Hughes, RD#2, Clinton, N. Y.

WANTED WIDE FRONT ends for Farmalls—cash or trade. Warrner H. Callaway, RD1, Bridgeville, Delaware. Phone 337-7128.

OLD ELECTRIC and Windup Toy Trains. Edward Wichmann, Lenox, Massachusetts.

WOMEN'S INTEREST

BAKE NEW GREASELESS Doughnuts in kitchen. Sell stores. Free recipes. George, 3607 South 15th, Minneapolis 4, Minnesota.

BEAUTIFUL NYLON HOSE 3 pairs \$1.00 Sheermills, 21831 Cloverlawn, Oak Park, Michigan

QUILT PIECES: 5 pounds — \$2.00. Cottons; guaranteed. Elizabeth Thompson, 21 High Brookline 46, Massachusetts

DECORATE WITH WALLPAPER. Free 1963 catalog. 99 new washable patterns. Decorating suggestions and color schemes. Instructions for measuring and hanging. We pay postage. Penn Wall Paper Mills, Dept. G, Bridgeton, New Jersey.

PERCALE QUILT PIECES! 3 1/4 lbs. \$2.00. Postpaid. Ward Gould, 92-A North, Medfield, Mass.

PLASTIC FREEZER Containers. Square pints, \$9.50 per hundred; quarts, \$14.50 per hundred; Postpaid. Sample pint, 25c. Oxboro Heath Co., Box 7097N, Minneapolis 11, Minnesota.

TEE SHIRTS — white—\$6.95 a dozen. E. Mathers Stafford, New York.

CHURCH GROUPS, CLUBS, raise funds quickly! Many new money-makers. Free catalog. The Brisko Company, Shaftsbury 5, Vt.

RUG BRAIDERS: Complete supplies available; pre-cut and prerolled wool—36 standard colors. Braiders—needles—lacing and stand. Send 35c for color chart. Carter Redi-Braid, P. O. Box 61, Devon, Conn. Dept. A.

MISCELLANEOUS

STOP ITCHING Promotes healing of piles, psoriasis, eczema. "Roberts Reliable Salve" effective since 1888. Satisfaction guaranteed 3 oz. \$1.00 postpaid. Roberts Pharmacy, Lisbon Falls, Maine.

CESSPOOLS. SEPTIC tanks outhouses, clogged drains cleaned. Deodorized without digging and pumping. Sursolvent reduces contents, reclaims leachability. Old systems made to work like new. Free details. Electric Sewer Cleaning Co., 291 Lincoln Street, Allston 34, Mass.

PARTS FOR STOVES, furnaces; coal, oil, gas, electric. Empire Stove Co., 793 Broadway, Albany, New York.

QUICK-JOHN FOR septic troubles, outdoor toilets. New, exclusive—enzyme-bacterial formula digests solids, grease, paper, etc. Ends backups, odors, pumping, dipping. Harmless to packets. \$2.50 postpaid. 12, \$4.50. Money back guaranteed! Ryter Co., Mardelia 20, Minn.

HUNDREDS MONEYMAKING Opportunities. Free copy. Popular Mechanics, 740-CT Rush, Chicago 11.

MAKE YOUR OWN WILL Legal "Will Forms" complete ready to fill out with instructions. Two copies 50c, five copies \$1.00. Pioneer Tunnel, Marietta 18, Ohio.

SONGPOEMS WANTED! Collaborate with professional songwriters equally. Share royalties. Songwriters Contact, 1619-G Broadway, New York 19.

KNOW SOMEONE LONELY, ill, shut-in? Send \$1.00 for four, friendly, personal, monthly letters. Give age, birthday, hobbies of recipient. Box 514-RW, American Agriculturist, Ithaca, New York.

ATTIC AND BARN 'Junk' worth money. Will buy almost anything pre 1910. Send brief descriptive list. Judah Weberman, 1 Grandview Ave., Monsey, New York. Phone 914 EL 6-3556

CHUNK WOOD BURNING Furnaces. Daniels Mfg. Company, Hardwick, Vermont.

BIRD PRINTS 9"x12" Beautifully colored. 6 for \$1.00. Dinah Dohhs, Box 292, Red Hook, New York.

AFRAID OF LIGHTNING? Don't be—call us for free inspection. Survey and exact cost on complete lightning rod service. Morse-Collins, Inc., 148 Coddington Road, Ithaca, N. Y. Phone AR 2-8550.

1000 QUALITY name and address labels—\$1.00. Ambassador Press, Box 1, Lynn, Mass.

PRINTING—complete service—low cost. Letterheads, envelopes, tickets, posters, cards, labels. John Belcher, Falls Village, Conn.

The Spring Princess

(Continued from Page 29)

ered with white and purple violets and bluets; later, it is studded with golden dandelions.

For the first Spring Fashion Show, she wears luxurious furs of pussy willow and carries a crocus corsage. Later, her eager arms are filled with hyacinths, daffodils, and tulips and entwined with forsythia. She is superbly scented, and adorned with a new spring bonnet of apple and cherry blossoms. In June, she wears a gorgeous cape of pink and white mountain laurel.

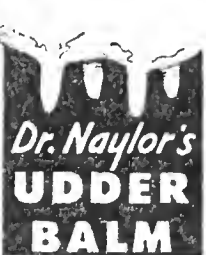
She meets the deer, emerging from their winter quarters and frolics with the darling baby fawns. Strolling in the meadows and pastures, she chatters with the squirrels and chipmunks as they scamper along the stone walls; she gives a gay greeting to the skunks and woodchucks. She admires Mr. Robin's new red-breasted spring suit, and tells the chickadees, woodpeckers and bluejays that they are looking very well. (They feasted on our suet and grain all winter!)

Stopping by our red barn, the Princess takes great pleasure in letting out Ginger, the cow, and the two calves, Susie and Peggy. She knows they've been inside for months and smiles understandingly as they gallop gleefully across the pasture. Scamper, the new puppy, barks excitedly, and our hens cackle of their laying contest.

The Princess watches approvingly as we clean the house, rake the yard, weed the strawberries, fix fences, and fertilize the fields. She plays hopscotch and marbles with our visiting grandchildren; she helps them fly their kites. She tempts our jaded appetites with horseradish, parsnips, dandelion greens, and rhubarb. She sees the wood smoke coming from our chimney and smells the tantalizing aroma of home-cured fried ham and milk gravy, and fritters with new maple syrup.

Heal TEATS! Soften UDDERS!

You will like this modern, more effective medication for Sore Teats, Tender Udders. More soothing, more softening, more penetrating to relieve soreness... reduce congestion. \$1 at drug and farm stores, or write
H. W. NAYLOR CO., MORRIS 9, N. Y.



Special Money Saving Prices

New Firestone Tractor, Truck and Car Tires. Write for our new low farmer discount price sheet.

EMPIRE TIRE CO.

2562 Bedford Ave., Brooklyn 26, N. Y.

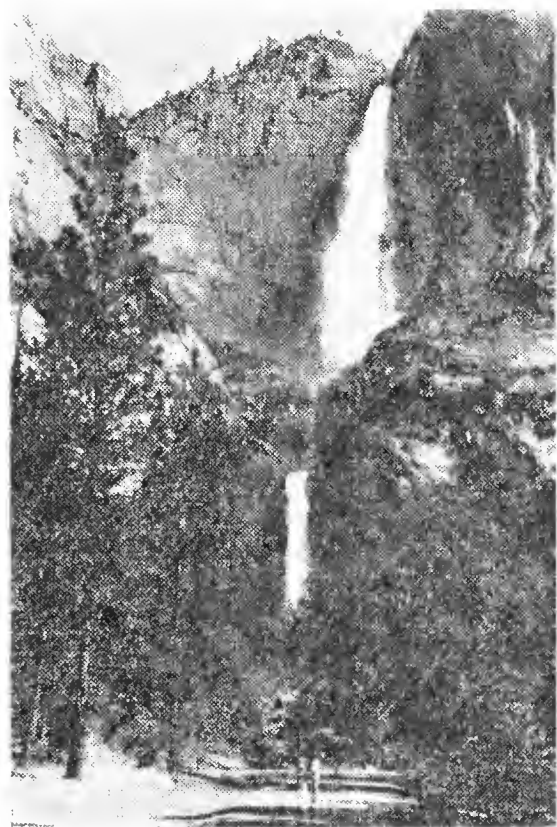
REWARD WANTED

I'm looking for three district fieldmen. Openings now available in New York State for Madison County, Chenango County, Dutchess - Columbia counties. If you are between 25 and 45, like to meet people, have a dependable car, want a year-round position with income of \$75.00 a week or more to start, send me your qualifications.

HARRY ENNIS

N. Y. State Manager
AMERICAN AGRICULTURIST
420 Savings Bank Bldg.
Ithaca, N. Y.

Every year the miracle of the Spring Princess' awakening is God's promise of renewal and redemption. To us, the wondrous beauty that transforms The Basin is a symbol of our own Salvation, an Easter promise. It is the answer to our prayer. "Thy Kingdom come, on earth, as it is in Heaven."



Yosemite National Park is just one of the great natural wonders we will see on our tour to California and the Northwest.

Westward Ho!

JUST about three months from now a happy party of AMERICAN AGRICULTURIST travelers will head west to Chicago for the start of a wonderful tour that will take them to the most beautiful and fascinating places in California and the Northwest. The dates are July 7 to 27, and you'll see places you have always longed to visit — the Black Hills and Mt. Rushmore, Denver and Colorado Springs, the Royal Gorge train route through the Rockies, Salt Lake City, Reno, Yosemite Park, the Monterey Peninsula, San Francisco, Crater Lake, the Columbia River Gorge, and Frontier Days at Cheyenne.

Your ticket for this tour includes everything—escort service, all transportation, meals, hotels, baggage transfer, sightseeing, and tips. You'll have absolutely nothing to do but enjoy yourself.

For more information, write for a free copy of the itinerary, using the convenient coupon below. The itinerary tells just where we will go every day of the tour and pictures many of the places we will visit. It also gives the exact cost of the all-expense ticket.

Since space for this exceptionally fine tour is limited, we urge you to not delay in writing us. If you wish to make sure of your reservation, you may send it in immediately with a deposit of \$100 per person. This deposit will, of course, be refunded if you have to cancel later.

A. James Hall
American Agriculturist
Box 367-N
Ithaca, New York

Please send me without obligation on my part a copy of the itinerary for your Northwest Holiday Tour (July 7-27).

Name _____
Address _____

With AMERICAN AGRICULTURIST Advertisers



Stock feeders and dairymen will have a chance to test a new annual grazing and green chop plant next growing season. Called Trudan I, it was developed by NORTHRUP, KING & CO., 1500 Jackson Street N.E., Minneapolis 13, Minnesota.

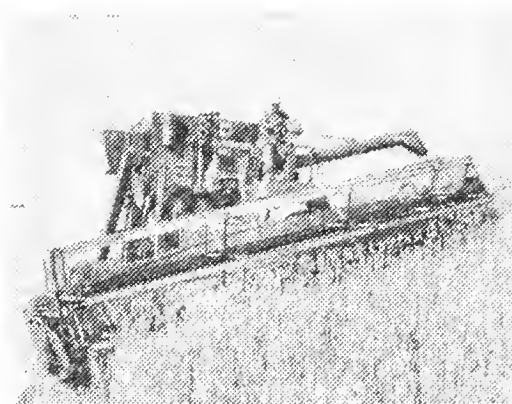
This high-yielding hybrid has fast regrowth after grazing or clipping, high seedling vigor, and low hydrocyanic (prussic) acid content.

Applying chemicals for weed control in orchards is a relatively new practice that is effective but requires some know-how. A new technical bulletin entitled "Weed Control in Apples" is available from GEIGY AGRICULTURAL CHEMICALS, Ardsley, N. Y.



Pictured above are the buildings on the 300 acre Beacon Dairy Research Farm at Cayuga, New York. It has facilities for 110 dairy animals, plus a complete swine unit with a capacity of 500-600 market hogs per year.

A film, "Reminder to Dairymen," is available from the film Department AA, BABSON BROTHERS CO., 2843 West 19th Street, Chicago 23, Illinois. It combines practical milking suggestions taken from actual farm scenes, along with good advice by Dr. C. W. Turner, Professor of Dairy Husbandry at the University of Missouri.



Four-way automatic leveling is a feature of the new low silhouette McCormick International 403 Hillside Combine manufactured by INTERNATIONAL HARVESTER COMPANY, 180 N. Michigan Ave., Chicago 1, Illinois. The combine not only levels from side to side but also front to rear for keeping the separator level when operating on slopes and while going up and down hill.



Portable, circulating warm-air heater, Model F-85, made by KNIPCO, 324 Talbott Tower, Dayton 2, Ohio, is the result of technical improvements to make operation easy and efficient under the most difficult farm conditions.

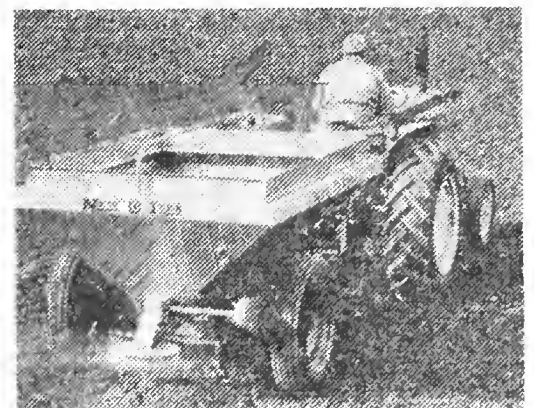
This heater has an optional thermostat to allow continuous operation and controlled temperature for longer periods, uses kerosene, No. 1 fuel oil, or can be plugged into any 115 V circuit.

For 1963, OLIVER CORPORATION, 400 W. Madison St., Chicago 6, Illinois, has introduced 23 new products. Items of interest include two four-wheel-drive versions of Oliver 1800 and 1900 tractors, with higher usable horsepowers for both tractors; a short seed-drop planter that has proven ultra-accurate in planting corn, soybeans and similar crops; 2 to 5 bottom mounted plows with independent suspension and cushioned action for each plow bottom with each colter reducing shock, strain and breakage; and a new swather or windrower.

A Forage King self-unloading forage box is the latest addition to the BADGER NORTHLAND farm materials handling equipment. It has a capacity of 775 cubic feet and has pto unloading. Controls of the 4-speed ratchet conveyor drive are up front for easy access to the operator.

Researchers working for ALLIS-CHALMERS have concluded that narrow-row, wheel-track planted corn can prove more profitable to the farmer than that planted conventionally. The company has been experimenting with a six-row wheel-track planter; it introduced the four-row planter of this type about two years ago.

To help farmers interested in on-farm mixing of their own grain rations, FARMHAND, Hopkins, Minnesota, is selling Swine Premix so that it will be simpler to mix rations right on the farm.



Designed by NEW IDEA FARM EQUIPMENT COMPANY, Coldwater, Ohio, with patented agitator and metering device for spreading pelleted, granulated and semi-granulated fertilizers plus seed is a new 3,000 pound capacity spinner type fertilizer (with optional sideboards). It has a uniform spread pattern up to 56 feet wide; shutter and hopper bottom are made of fiberglass for long life.



ED EASTMAN'S PAGE



**And with the morn
The soft fresh breath of April
from the west
Came blithely whispering,
Spring at last is here.**
S. J. Stone.

ARE YOU THE SAME?

ARE you the same person that you were seven years ago? The answer to that is probably No.

Spiritually, if life's experiences mean anything, you should be a better person. And, **physically**, scientists say that every cell in your body is replaced every 7 years.

Two of the most important food elements to make these replacements are calcium—mostly for the growth, repair and maintenance of bones; and protein to grow and repair body tissue.

How can we be assured of getting enough of these important foods? The answer is, use plenty of milk and its products. One glass of milk contains the same quantity of calcium as 10 eggs, 7 oranges, 7 pounds of potatoes or 2 pounds of carrots.

Milk and other dairy products are not only high in protein, but the quality of protein differs in different foods, and in milk is very high.

It is practically impossible to meet the body's requirements of protein if no dairy products are used.

WRONG IDEA

Of all the many foolish and dangerous schemes that have come out of Washington in recent years, just about the worst is the idea that you can **spend** yourself out of your economic troubles, that the more you spend the better off you will be.

How long do you think you would last as an individual if you continued to spend far beyond your income?

But that's just what the Federal and most of the state governments are doing. It never seems to occur to the politicians that the first step in any financial program is to cut expenses.

A letter to U. S. Senator Byrd from Virginia, who has fought for economy in government for years, has it right. The letter reads:

"Who is this Mr. Heller (chief economic adviser to President Kennedy) who thinks the more one spends the richer they are? All the so-called tax reforms are going to discourage thrift."

Another letter to Senator Byrd says: "My household of five would collapse in short order if run by the financial precepts of the Federal Government."

How much do you care? Do your

representatives in the State Legislature and Congress know how you really feel about government extravagance and high taxes?

Let's get along with some less public services. Let's ask government to cut expenses just as we ourselves have to do when we run short of income.

WE PLANTED A TREE

**I think that I shall never see
A poem lovely as a tree.**

Joyce Kilmer

One beautiful sunshiny spring day when I was in a one-room school, pupils, teacher and a few mothers gathered around a little hole in the schoolyard to plant a tree. After the planting of the little maple, there was an appropriate Arbor Day program of singing and speaking. I had a small piece to speak — and shall never forget how embarrassed I was when I forgot every word of it! But the tree never forgot the job it had to do, for it grew and flourished so that today it would never be recognized for the little sapling we planted long ago.

Now, I have no doubt that if the men of the neighborhood gave any thought at all to our planting the tree on that Arbor Day, they considered it rather foolish, for right across the road from the school-ground was a big maple grove — as there was on almost every farm for miles up and down that valley. In addition, there was a sizable woodlot with big healthy trees on every farm.

The sapling that my schoolmates and I planted on the schoolground is now a large and beautiful tree while the maple grove across the road is gone, as are almost all the other maples in the valley. The highway department has destroyed thousands of beautiful trees that once graced our roadsides, and many of our woodlots are now growing little but brush.

Can you imagine our countryside without trees? Not only do they add grace and beauty to our lives, but a well-kept woodlot can be a valuable farm crop, a good source of income. Woods break up strong destructive winds, prevent the soil from being blown away, and hold moisture throughout the year.

Arbor Day, started in Nebraska in 1872, is set aside by law in many states for planting trees. (In New York State, Arbor Day is the last Friday in April.) But planting trees should not be confined to schoolgrounds, nor to one day in the year. We owe it to those who will follow us not to leave them a bare America, denuded of one of our most precious possessions.

Let's get scientific advice on the care of our woodlots, and let's resolve not to destroy a tree without putting another in its place.

For information and help about tree planting, write to Mr. Ted Collins, Chairman of the Arbor Day Committee of the New York State Arborists Association, Inc., College of Forestry, Syracuse, New York — or to any forestry school or college in your own state.

WHERE ARE YOUR RECORDS?

These are the days when more and more records are necessary. Not only do we need them for income tax purposes but for our own family and personal security.

Personal papers and records should be stored in a safe deposit box or in a strong box. But all too often they are just chucked — hit or miss — into the desk drawer.

Supposing you should (God for-

bid!) die suddenly, be injured, or have a long illness. You or your family will immediately start worrying about your business papers and records. Let's save them and you that worry.

Life insurance policies, deeds to your property, bonds, social security papers, bank books and records, your income tax reports, notes (due you or owed to someone else), contracts, and what have you, should be listed and stored safely. A careful list of everything in your safe deposit box at the bank or in your strong box at home will prove very helpful. Keep a separate duplicate list.

While you are thinking about it, make a mental or written note to organize and list your papers and store them safely.

BEWARE!

I had a friend who was very proud of his brand-new tractor. The first week he had it he started to drive it across a steep bank. It turned over and killed him. I will never forget the unnecessary loss of this friend and the awful sorrow that the accident brought to his family.

Turning over sideways accounts for 39 percent of tractor deaths, according to a survey made by W. B. McClure of the Ohio Experiment Station and reported in the **Ohio Farmer**. In five years, according to Professor McClure, tractors killed 212 Ohio operators or riders, and injured 7,000 more.

In addition to tipping sideways, tipping backwards kills 14 out of every 100 victims. Nineteen are killed by falling off or being thrown from a tractor. Many tractor accidents are caused by too young boys or girls driving them—and riders often get killed or hurt.

We are now right at the time when we are operating tractors every day. Will your name or that of some member of your family be reported as killed or injured before the end of the season? That's worth thinking about! So is carelessness in the operation of any other farm machine.

EASTMAN'S CHESTNUT

A friend sent me this true story about the time when his father was helping a neighbor with his farm work. The neighbor had a hired man named Jerry who was supposed not to have "all of his buttons."

One day as they were eating dinner, there was a knock at the door, and a young woman asked to see Jerry. In a few moments Jerry came back to the table and asked the farmer for the afternoon off.

Next morning, when Jerry arrived on the job, he said to his employer: "I was married yesterday afternoon."

Startled, the farmer yelled: "What?"

"Yep," said Jerry, "wife's got a baby this morning."

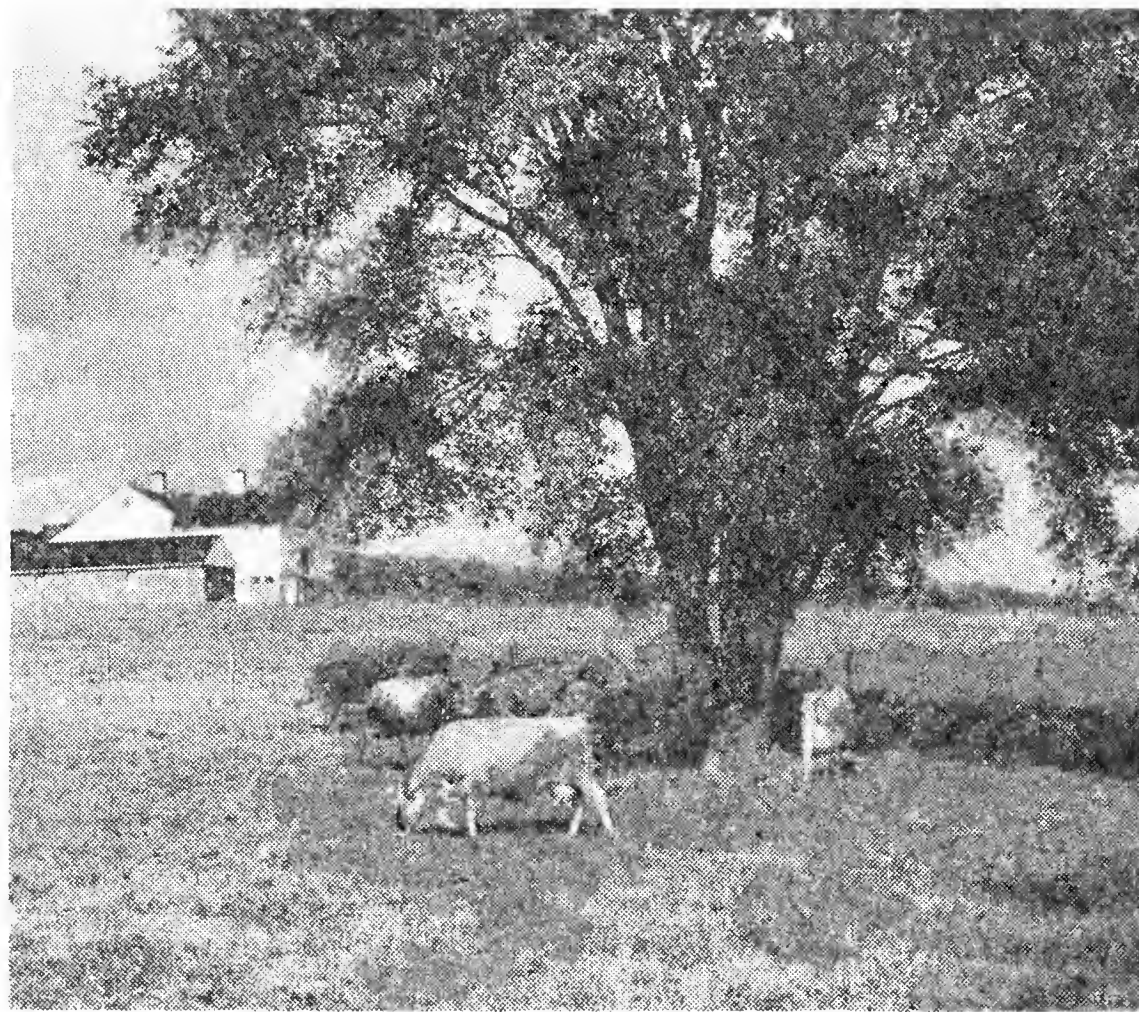
When the farmer could get his breath, he asked:

"Jerry, is the baby yours?"

"Of course it's mine," Jerry answered emphatically.

"How do you know?" asked the farmer.

"Well now, boss, if you bought a cow and that cow had a calf, ain't that calf your'n?"



Doesn't this give you a feeling of peace and security? What would our Northeast farm country be without trees, especially without our beautiful elms and maples? Yet, because of disease and insects, the increasing demand for lumber and paper, and the ruthless destruction of the trees by the highway departments, we are losing them fast.



SERVICE BUREAU

Crocus and Crook Season

A LONG WITH showers and violets, April also brings the fast talking door-to-door salesman. This is the time of year when we get many complaints concerning itinerant workmen and salesmen, who rush homeowners into making purchases and signing contracts before taking time to check.

Reputable salesmen, of whom there are many, will be willing to let you compare costs, read contracts carefully to be sure they are not incomplete or too vague, and check with others who have had work done by their companies.

In fairness to reputable salesmen, ask to see credentials of any representative who calls on you, offering either services or merchandise. Compare cost of his service or merchandise with local merchants. Do not take for granted any promises that are not contained in the contract. Misunderstanding what the salesman has offered in services or merchandise, or deciding that you cannot afford to buy, will not excuse you from paying, once you sign the contract. This applies to everything from subscriptions to vacuum cleaners.

Where home repairs are concerned, it pays to be particularly wary of the itinerant salesmen—the men who drive in, often with an out-of-state license plate, and offer to paint your roof—or barn—or pave your driveway—or check your appliances. When the paint begins to wash off the roof—or the driveway washes away, these men are long gone, and there is no possibility of getting any satisfaction or settlement.

In 1957 a Bureau of Consumer Frauds and Protection was set up by the office of New York State Attorney General Louis J. Lefkowitz to protect the consumer and the honest businessman.

Since then, much progress has been made in putting a number of the fraudulent companies out of business. However, as the Attorney General points out, "the best protection against fraud and deception is an alert and wary consumer."

To aid in alerting the public, his department has set up the following 10 point buying guide for consumers:

1 DON'T be misled by the dealer who lures you to his establishment with an attractive advertisement of a standard brand item and then tries to talk you into a higher priced off-brand article. Be wary of the story that he is all out of the advertised item, or that there will be a long wait for delivery, or that what he now is trying to sell you is better than the advertised article.

2 DON'T be blinded by "bargains" offered at prices which are hard to believe. Check prices of the same quality merchandise or service offered by other dealers and make sure that the advertised article is what it is claimed to be. Such phrases as "reduced from," "made to sell for" and the like should act as a warning signal for you to check further.

3 DON'T be rushed into buying anything by talk of a "golden opportunity" or persuasion that it is

a "last chance" to get in on a "good thing." Take your time, investigate, and make up your mind carefully.

4 DON'T allow a door-to-door salesman to leave merchandise with you on an "approval receipt" until he returns. He may not come back and you will find yourself receiving a bill for an article which you do not want.

5 DON'T permit a household appliance or television or radio set to be taken from your home for repairs without first receiving in writing an estimate of the probable repair cost. Obtain written assurance that no additional charges will be made without your consent, and that if you do not want the "extra" repairs the article will be returned to you immediately.

6 DON'T use the article delivered to you if you find that it is not the same as you ordered, but immediately notify the seller. If a finance company is involved, and your complaint is not satisfied, inform the finance company in writing of your complaint within 10 days after you receive the notice the finance company is required by law to give you. This is important because if you fail to do so, you may lose valuable rights and find yourself obliged to pay for something you do not want.

7 DON'T accept an oral guarantee. Get it in writing. Make sure you understand what it says and that it protects you fully. Be sure that installations of appliances and such furnishings as carpeting are guaranteed by a dealer, because a manufacturer can claim that a product's warranty has been voided if it has not been installed properly.

8 DON'T sign a contract without reading it carefully . . . especially the fine print. Insist that all details of the sale be in writing. NEVER SIGN A BLANK CONTRACT WITH BLANK SPACES IN IT. Demand and get a copy of the contract. Check with a lawyer if you don't understand it. Never sign a statement which states that work is finished until it actually is.

9 DON'T make financial commitments which you cannot possibly meet. When buying on the installment plan, remember that if you fall behind in your payments, the seller usually has a legal right to repossess the merchandise and sell it for whatever it will bring to meet part or all of your remaining indebtedness.

10 DON'T hesitate to investigate before buying. If you have any doubt about a dealer, check with the Attorney General's Office, Better Business Bureau in your area, your local Chamber of Commerce, or some other community organization which works to protect the consumer and the legitimate business man.

A copy of this guide, "Your ABC's of Careful Buying," may be obtained by writing the Office of Attorney General Louis J. Lefkowitz, 80 Centre Street, New York 13, N. Y.

Falling Tree Crushes Farmer in Tractor Seat

Mr. Francis E. Clancy of Hornell, N. Y. and a neighbor were cutting trees when one tree lodged in another. They tried pulling it down with a cable hooked to a tractor. As the tree gave way the tractor stalled. Seeing the tree coming toward him Mr. Clancy tried to jump clear but his shoe lace caught on the brake pedal.



Mrs. Clancy received \$1,000.00 loss of life payment from agent Donald Russell. The two North American policies with base benefits of \$2500 increased to \$1000 because they were kept renewed. Two years earlier Mr. Clancy drew \$624.28 when injuring his back in a tractor accident.

OTHER BENEFITS PAID

Elmer Long, Berne, N. Y.	287.11	Fred C. Young, Pennellville, N. Y.	730.00
Kicked by cow—injured back, leg & knee		Fell while riding manureumper fractured arm	
Charles E. Prentice, Fillmore, N. Y.	321.43	Irene Peck, Oneonta, N. Y.	1170.00
Auto accident—concussion, broken nose, bruises		Tripped on vine in field—injured back	
Robert Covell, East Randolph, N. Y.	699.03	Louis A. Amyot, Hammond, N. Y.	720.07
Shipped & fell loading truck—internal injuries		Kicked by cow—fractured knee	
Dennis Byrne, Moravia, N. Y.	327.11	Earl Peter Moulton, Madrid, N. Y.	156.78
Knocked down by bull—injured chest		Hit head on car door—concussion, cut scalp	
Viola Doneavane, Sherman, N. Y.	111.40	Joseph Mrozek, Jr., Ballston Lake, N. Y.	239.28
Bitten by dog—severe leg wound with infection		Run over by tractor—injured leg, hip, knees	
Gertrude Neilitz, Pine City, N. Y.	180.00	Donald E. Wilcox, Dorlo, N. Y.	181.91
Cow stepped on foot—broke little toe		Repairing plow—cut thumb	
Louis D. Dunckel, Oxford, N. Y.	181.20	LaVerne VanSiver, Jasper, N. Y.	650.15
Fell from ladder—severe sprain left ankle		Kicked & stepped on by cow—internal injuries	
Ralph Kirk, Cadyville, N. Y.	171.28	Stanley C. Wishinsky, Oswego, N. Y.	361.28
Fell off tractor		Crushed by bull—injured hand	
Oliver E. Carley Sr., McGraw, N. Y.	320.00	Roderic Neno, Groton, N. Y.	1502.89
Hit by car while driving tractor—bruises, concussion		Fell off roof—injured back, elbow, arm	
Otto Ferber, Andes, N. Y.	570.38	Russell Kortright, Kerhonkson, N. Y.	188.77
Tractor tipped over—cuts & bruises, injuries		Horned by cow—injured elbow	
Christopher Murphy, Jr., Amenia, N. Y.	107.14	George E. Pearson, Valley Falls, N. Y.	121.13
Pulled when leading cow—injured arm		Pushed by heater—injured chest & ribs	
Douglas L. Smith, Dickinson Center, N. Y.	200.00	Roy Thompson, Ontario, N. Y.	670.38
Auto accident—injured chest		Truck accident—fractured shoulder, fingers, cut head	
Irene Bumstead, Johnstown, N. Y.	100.75	Charles L. Winters, Perry, N. Y.	137.00
Slipped on ice—fractured leg		Slipped on steps—broke teeth	
Harold Phillips, Pavilion, N. Y.	227.52	John M. Murphy, Penn Yan, N. Y.	1124.35
Kicked by cow—injured ankle		Cleaning stable—slipped & fell injured back	
John A. Black, West Kill, N. Y.	180.00	William Perkins, Oswego, Pa.	338.62
Auto accident—broke ribs, injured knee, hip		Cow jumped on foot—fractured foot	
Arthur Helmer, Newport, N. Y.	158.81	Amc. Rutledge, Tyler Hill, Pa.	278.61
Kicked by cow—injured back		Fell from farm truck—broke arm, cut head, injured shoulder	
Charles D. Dunham, Hammond, N. Y.	189.60	Ronald Leonard, Gillett, Pa.	178.56
Thrown from horse—fractured arm		Fell from manure spreader—fractured ribs	
Adam Keeler, Copenhagen, N. Y.	599.45	Dale Stermer, Tiooga, Pa.	228.31
Cow jumped on insured—injured leg		Auto accident—injured head, abrasions	
John W. Palmer, Georgetown, N. Y.	596.14	Glyde J. Passmore, Mansfield, Pa.	239.75
Crushed by log—internal injuries		Slipped shoveling snow—injured back	
Gerald Casler, Fort Plain, N. Y.	816.48	Seeley B. Storms, Glenwood, N. J.	396.42
Cow fell on insured—broke leg, injured knee		Auto accident—injured ribs, foot, leg	
Ivan D. Peak, Sangerfield, N. Y.	209.92	Joseph Stoy, Lamherville, N. J.	111.50
Plank fell on foot—fractured toe		Fell—cut & bruised hand	
Clifford Dennis, Manlius, N. Y.	310.28	Joseph Rette, Allentown, N. J.	1096.10
Crowded against post by cow—injured back & leg		Auto accident—fractured ribs, injuries	
Floyd Plain, Honeoye, N. Y.	110.00	William Allen, Medford, N. J.	200.00
Auto accident—cut head & arms, fractured pelvis		Farm truck accident—fractured rib, injured arm	
Frank Hansler, Medina, N. Y.	112.56	John G. Waters, Allentown, N. J.	628.15
Truck accident—fractured ribs		Gun shot wound in hand & stomach	

Keep Your Policies Renewed

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(In New York State)

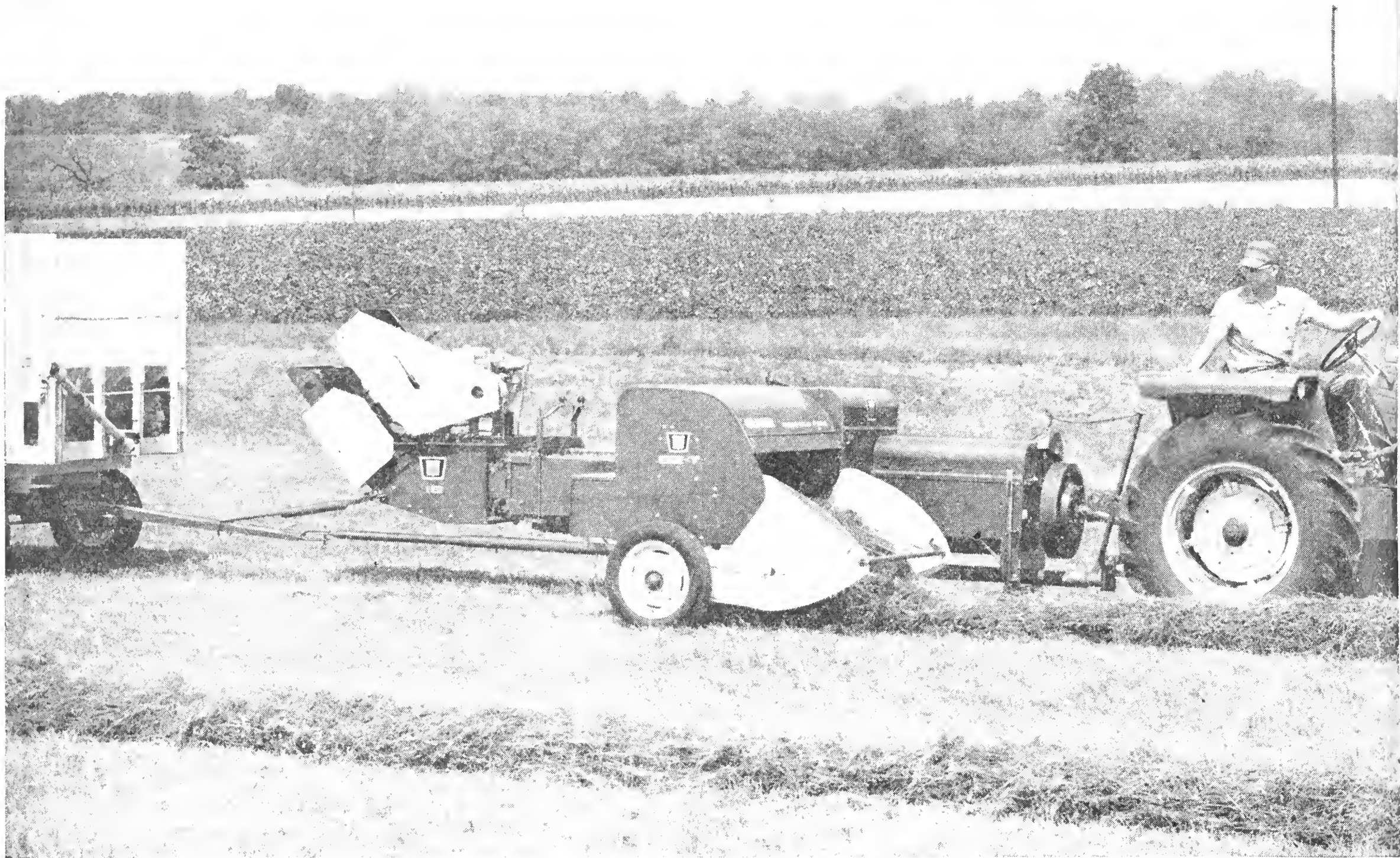
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SAVINGS BANK BUILDING

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12 TONS AN HOUR EASY

with the short-coupled OLIVER 62

The Oliver 62 is the baler that gives you both *capacity* and *easy handling*. It's rated at 12 tons per hour but has actually been clocked at 13.4 tons per hour in field tests. Exclusive Roto-Flo feed features long steel tines that move heavy windrows rearward and inward with steady, gentle motion. You get high tonnage with square, uniform bales of even density.

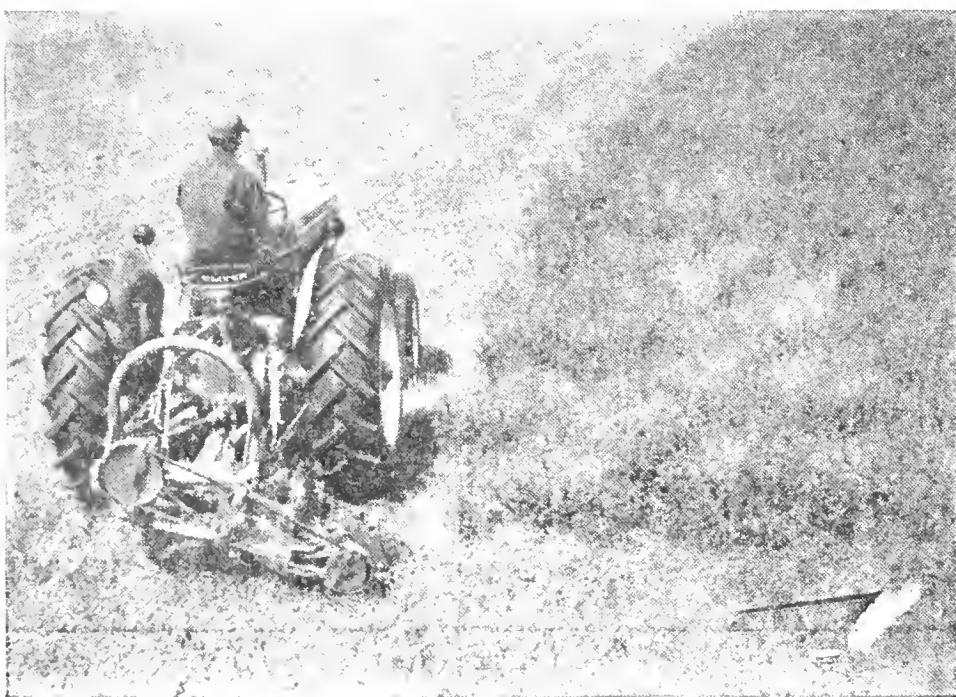
Close-coupled Oliver 62 design gives you a PTO baler that follows right behind your tractor. It's easy to watch the pick-up, simple to keep it centered on the windrow, even around curves. You keep the tractor close to the windrow but out of the hay. "Pivot Balanced". PTO shaft rolls smoothly during turns and transmits power stead-

ily. Clatter and vibration are cut to a new low. See the 62 hitched to a tractor and you'll see the difference.

ON-TARGET 15 BALE THROWER *saves men...and bales*

Here's the high capacity bale thrower that does it right. It handles full-sized bales, up to 31 inches in length and 60 pounds in weight. It lets you hit the wagon anywhere on the load. Six continuously running rolls are grooved to handle bales without breaking ties or tearing up bales.

The 15 thrower pivots automatically to stay on target as the wagon trails to one side or the other around curves. Oliver Corporation, Chicago 6, Ill.



◀ *It's a high-speed honey!*

NEW COUNTERBALANCED 351 MOWER

Here's the no-pitman machine that's fast and quiet, with easy three-point hitching. There's no tractor-shaking vibration even with a sickle speed of 2280 strokes per minute. You'll mow close and even at far higher field speeds, slice right through heavy crops. See and hear the Oliver answer to high speed mowing. Six, 7, or 8 ft. cutter bars.

OLIVER

Look for this sign,
new symbol of prompt,
dependable service and genuine Oliver parts.





MAY 1963

American Agriculturist



For Summer Feeding
**ROUGHAGE
MAKES MILK**

PAGE 8

A CONSTRUCTIVE FORCE IN NORTHEASTERN AGRICULTURE

Mrs. Walter Wright pressing the button which starts the silage rolling to the Wright's 50 milking Holsteins.



"We feed forage 365 days a year...by pushing three buttons"

—Walter Wright, Johnson City, N.Y. Dairyman

GLF's Profit Feeding Plan calls for feeding high quality forage all 365 days—even through the spring and summer pasture season.

A profitable practice? Yes. Because it's the only way you can get 6 tons of Hay Equivalent into each of your cows so she will produce up to her potential in milk. She cannot get enough on pasture alone—even on lush grass.

And even though the pasture season is the busiest time of year for the dairyman

—haying, planting oats, drilling corn, fixing fence, spraying, cultivating—there's a way to solve this labor- and time-shortage problem. Ernest Wright and his son Walter, of Johnson City, N.Y., have done it by automating much of their materials handling.

"The silage feeding and hay conveying equipment works out very well for us," Walt Wright feels, "especially in the spring and summer. We spend a minimum amount of time on feeding chores,

and put the rest of our labor in the field—where our time returns more money in good quality roughage."

Do you feed roughage 365 days? It has raised milk checks on hundreds of dairies enrolled in GLF's Profit Feeding Plan. Ask your GLF Dairy Representative about the nine other profit-making practices in P.F.P.—today. Cooperative GLF Exchange, Inc., Ithaca, N.Y.

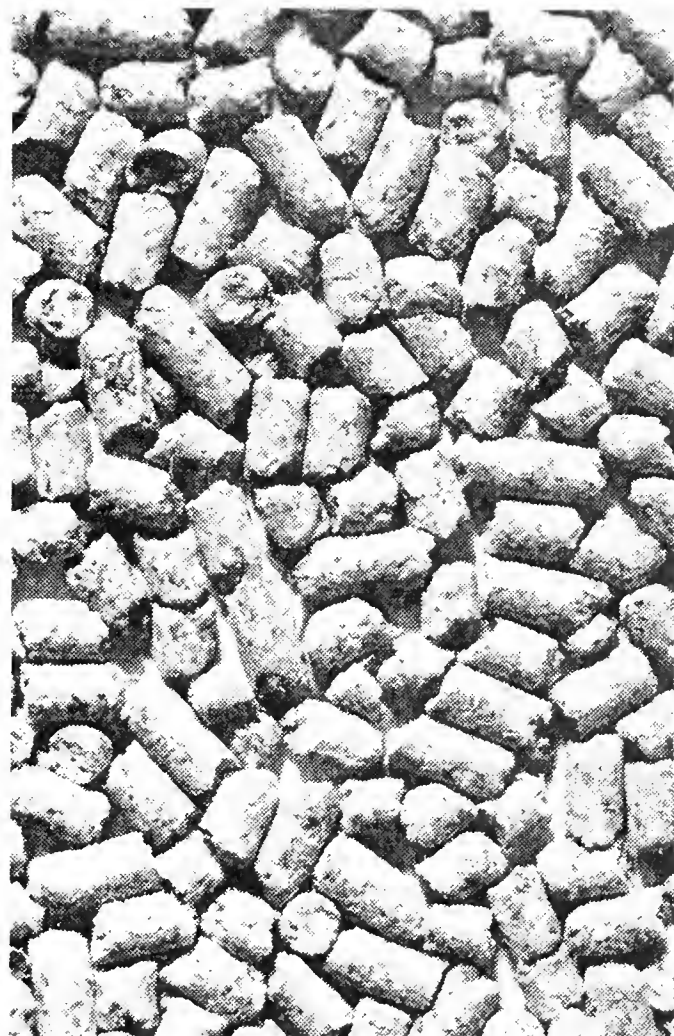
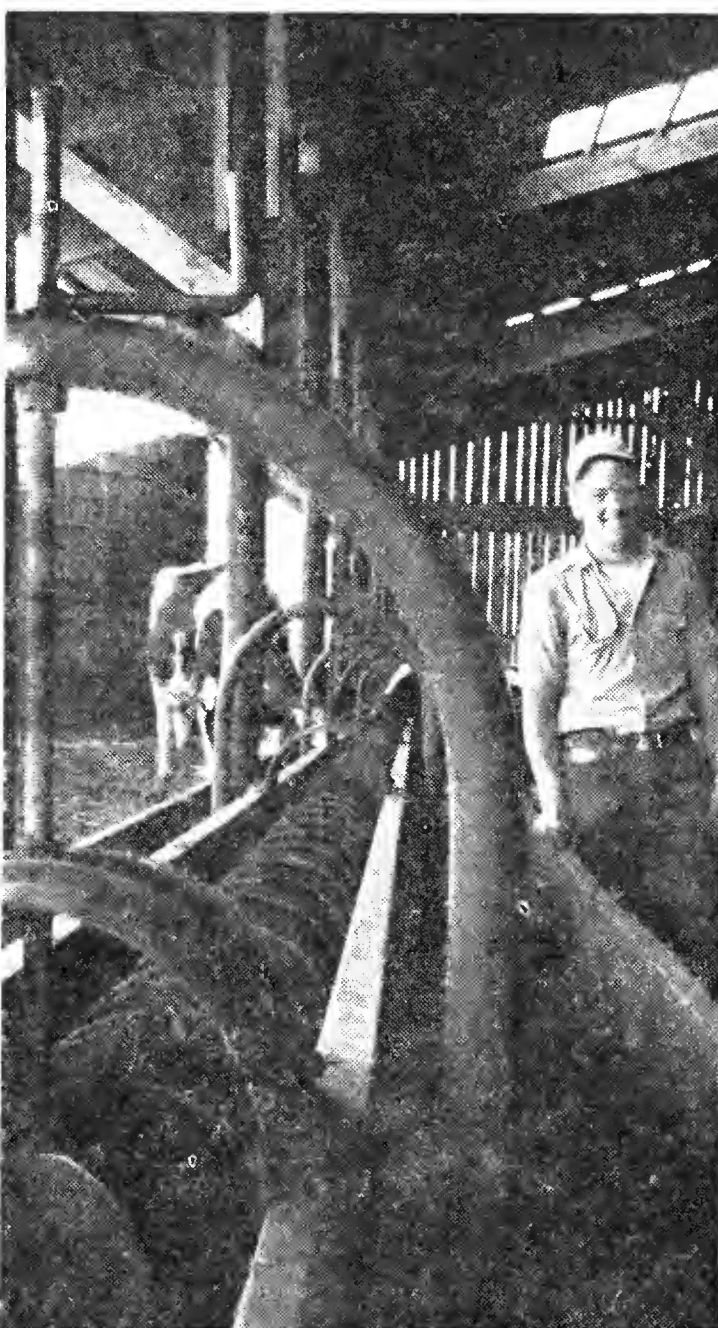
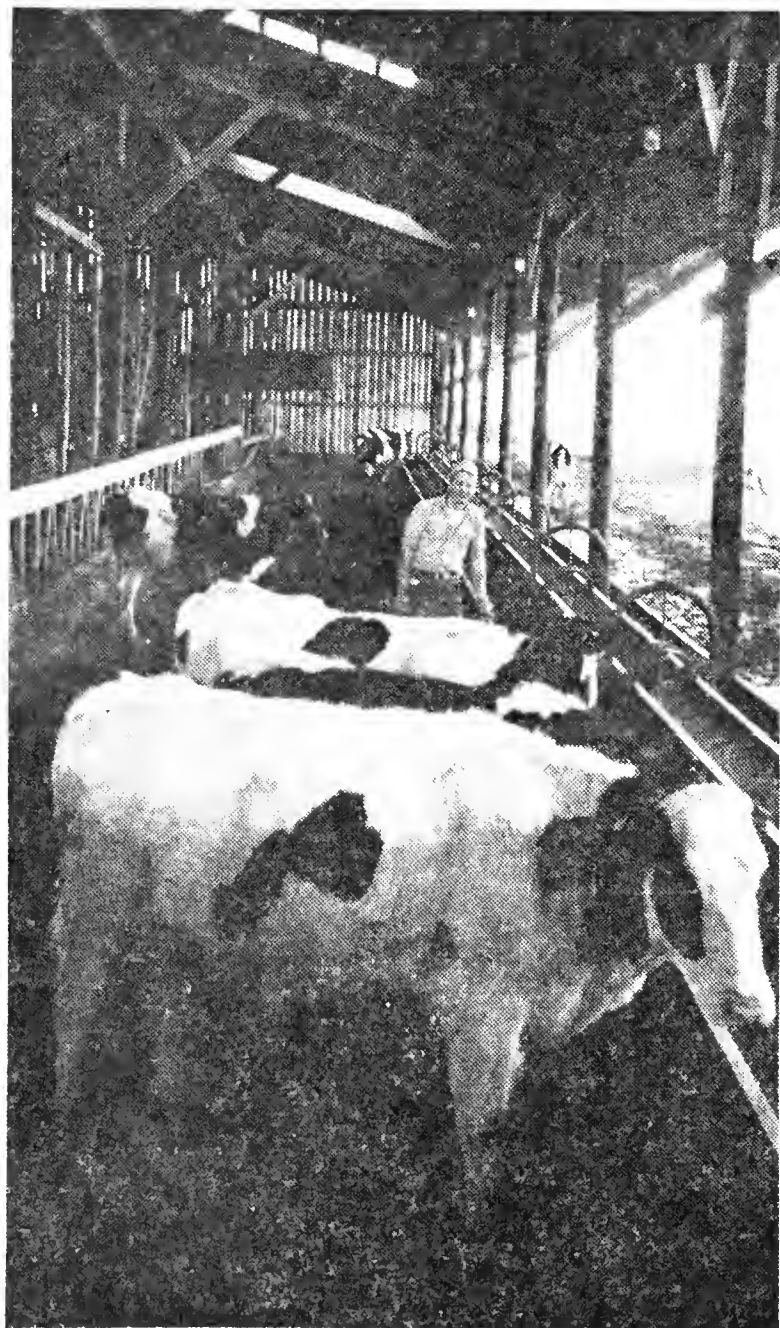


GLF DAIRY FEEDS SERVICES

The Wright's hay-storage and feeding pole barn, with automated hay conveyor and auger bunk feeder, built and equipped by the Endicott GLF Store.

Walt Wright: "We push three buttons and the Starline equipment delivers the silage to the cows. If we can't spare the few minutes it takes, my wife can do it."

GLF Hi-Energy Pelleted Feeds. Another move you can make to keep production high in spring and summer is to switch to one of the GLF Dairy Pelleted Feeds—#1600-16 or Compact 16. These feeds are extra high in total digestible nutrients and will offset any tendency your cows have to slump during the hot months. The pelleted form flows easily in bulk bins to save you the time and trouble of knocking the feed free if it bridges up. Make the switch today—by calling your GLF for a truck load of GLF Dairy Formulets.





American Agriculturist

A CONSTRUCTIVE FORCE IN NORTHEASTERN AGRICULTURE

Founded 1842 Volume 160 No. 5

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MEET

S. W. WARREN, whose comments on the passing parade appear on page 37, is better known as "Stan" to a host of friends. His pedigree is so long and impressive that it's hard to know where to begin. Since 1933, he has taught courses in farm management and farm appraisal at the New York State College of Agriculture at Cornell; nearly 6,000 students have benefitted from his instruction and enjoyed his humor. In 1948, students awarded him the "Professor of Merit" citation. Stan also has received the Silver Beaver award from the Boy Scouts of America for his activities with this group, serving as scoutmaster for many years.



BUSH-HOG

all purpose—heavy duty
ROTARY CUTTER



**"SAVES US
TIME...
MONEY"...**

reports Robert Dunn,
West Henrietta, New York

Robert Dunn writes:

"BUSH-HOG simplified mowing for us. Every year we mowed cutter bars and wasted time. But, last year we bought a BUSH-HOG and breezed through without even sharpening blades. Later, BUSH-HOG proved itself tops for mulching and spreading. Our BUSH-HOG saves us time and money and BUSH-HOG has convinced me that it's the finest tool ever to come onto the farm."



BUSH-HOG...DEPENDABLE MONEY-SAVER

BUSH-HOG reduces your costs with exclusive trouble-free features:

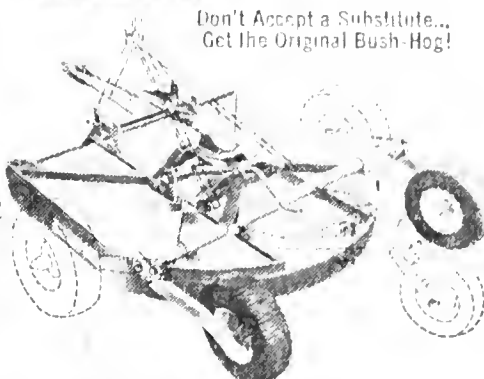
- FREE-SWINGING BLADES... Can't Clog! Can't Jam!
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- ENCLOSED REAR-END... Mulches and Spreads. Stops Flying Objects!
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Don't Accept a Substitute...
Get the Original Bush-Hog!



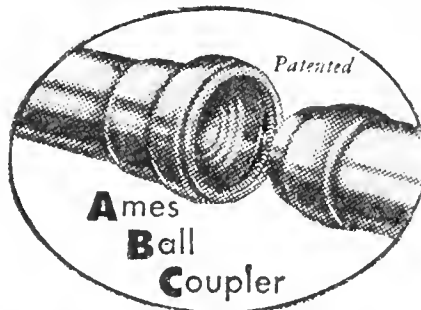
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Offset Plowing
Harrows
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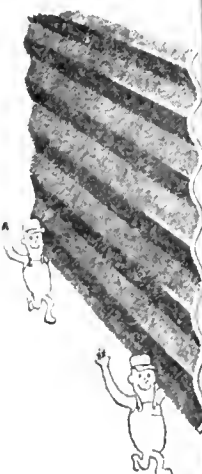


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EDITORIALS

BY GORDON CONKLIN



THE REAL QUESTION

ON MAY 21, farmers in the Northeast will vote in a referendum on wheat legislation. The air is full of bitterness over this one, with farm organizations and farm neighbors alike at opposite poles on the question.

Some, like Secretary of Agriculture Freeman and National Farmers' Union president Jim Patton, argue that the question is purely economic. They say that the issue is entirely "whether farmers want \$2 wheat or \$1 wheat."

I could imagine either of these men attending a school district meeting at which a vote is to be taken on erecting a new school building. Can't you hear Orville or Jim saying, "Folks, let's forget all that mumbo-jumbo about adequate facilities, teacher-to-pupil ratios, opportunity for growth, and all the rest of those fancy words. There is just one thing being voted on here, pure and simple—whether we're to have school taxes at \$25 a thousand of assessed valuation, or whether they'll be \$20 a thousand."

I think that pocketbook protection is oversimplifying the situation, and that Messrs. Patton and Freeman have oversimplified the issues connected with the wheat referendum—ignoring some mighty important things less tangible than dollars in the pocket. Of course, clearing away the smog of complication by simple phrases is always popular, and the Farm Bureau has also perhaps oversimplified the situation by claiming that the real issue boils down to only one—who will manage the farms of America?

I'm going to join the parade and present the Conklin Oversimplification. The real issue here is: **what direction do you want to see government go in connection with agriculture?** I didn't say that the outcome of the vote will mean government will be all out or all in the business of regulating agriculture; I said the vote will heavily influence the **direction** it moves. Congress, the President, USDA officials—all are waiting for the outcome before making decisions on other farm legislation.

There are some things that need saying about this situation:

1. Subsidies do not come from "government"; they come from the wallets of relatives and neighbors. Whether we believe farmers—or members of **any** occupational group—**deserve** to be beneficiaries of a redistribution of wealth is not being argued. But let's get our thinking straight about **where** the money comes from that's being passed around.

2. Basically, there are too many people engaged in agriculture—exploding technology requires fewer people to produce our food and fiber. We can cuss whoever we want to for this, but the fact remains.

Organized labor has invented the feather bed for displaced workers—railroad firemen who do not stoke boilers, and typesetters who set type only to throw it away. I question whether farmers leaving the farm want this way out.

Instead, I am convinced that government should put more emphasis on easing the transition of those farm families moving to non-farm occupations. The transition will come, but it should be made less painful by publicly financed programs.

3. For years it has been said that **farmers must accept strict controls if they are going to accept money taken by taxes from the in-**

comes of their neighbors. By golly, present wheat legislation says just that!

If we accept public hay, we shouldn't kick about being stanchioned. The handwriting is on the wall against unlimited purchase by government of what farmers want to produce—whether milk or wheat.

4. Hybrid wheat already developed will increase yields 20 percent within the next decade. That would mean dropping an awful lot of acres out of wheat production just to stay even. Have you figured out how this would affect your farm under mandatory programs?

So, a "no" vote will lower next year's per bushel price of wheat to the farmer, and sharply discourage much other similar legislation. A "yes" vote will increase next year's farm price of wheat over what it would be if the proposal is defeated, and encourage further extension of similar programs to other commodities.

The choice is yours.

PLAY IT SAFE!

THE PROBLEM with promoting rural safety is that it has no sex appeal. New equipment and the latest methods of farming just seem to hold natural interest for people—but safety programs are full of "thou shalt not" and are therefore unappealing. Everybody is for safety on the farm and in the home, just as they are for God and motherhood, but most of us are too busy getting something else done to **do** anything about safety. I have told my rambunctious son, age 4, at least 25 times that hotrodding on his tricycle is mighty apt to lead to bloody knees and lame shoulders. It looks as though bloody knees and lame shoulders are the only convincers that make any impact, though. Everyone has a built-in voice that whispers, "It can't happen to me."

Sometimes it seems as though that little voice even says, "So what if it does?" Never will I forget a comment made by an able-bodied and husky young soldier at Fort Campbell, Kentucky. A group of GI's were sweating on a work detail near the post hospital; they paused to "take ten" and looked across a field to where some amputees from Korea were sitting on lawn chairs in the shade. Ignoring their missing arms and legs, this young paratrooper exclaimed, "Look at those guys—they've **really** got it made!"

We find a certain exhilaration in living dangerously—that surge of power under the hood of a big tractor in road gear is a heady experience to the Hayfield Hotshot. Being indifferent to the danger of handling a bull is supposed to be sure proof that a man has hair on his chest (and cement in his skull).

Farming is one of the most hazardous occupations with all its power equipment, heights to be climbed, animals that can be unfriendly, and machinery that seems to reach out and grab arms or legs. Accident statistics paint a pretty grim picture of injury and death across rural America.

Why **should** we be safety conscious? Because, if we have any sense of purpose of life, we know that we need to fight another day. Taking a long chance today may seem justified under the pressure of the moment, but that string of cows—or those fruit trees, hens,

and crops—will be there tomorrow, and the day after tomorrow, and the days after that.

Children depend on their parents for encouragement, understanding, and inspiration. Their tomorrows deserve consideration too when deciding such things as whether to clean out the husking rolls of a cornpicker when it's running. Snuff out your life there if you must, but before you do, try to recall the most bewildered look you have ever seen on the face of a child—your child.

A good Spring Clean-up and Fix-up is one thing we can do **now** along the road to safer living. For the long haul, we can use our horse sense day by day to insure that we grow old in the harness, rather than kick over the whiffletree with some crazy stunt that lands us in the boneyard or on the cripple list.

Excuse me while I go pick up that boy again—he's pretending his tricycle is an airplane and he's buzzing the porch steps!

MODERN REA

LOOKING BACK down the years, I remember the day we first used electricity on our farm in 1937. It was a red-letter day, believe me; we went around turning lights on and off just for sheer pleasure. You remember—a bare bulb here, another one there, little dreaming what coming years would bring. It was a private power company that put the line through, but it seems to me there had been talk in the area of forming an REA cooperative. Many a rural home back then was "wired" because of REA.

Frankly, though, REA troubles me at the moment. The organization borrows federal money at 2 percent interest, and does pretty well by loaning it back to Uncle Sam at a higher rate. It publishes "The Rural Electric Minuteman" that endlessly cusses private power companies. Here's a sample quotation from the January 18, 1963, issue of that publication, "Almost 8,000 rural electric leaders—from the Arctic Circle to the Florida Keys—**determined to take the offensive against their power company opponents and allied groups** when they met this week in Las Vegas, Nevada." (I'll bet there were some good expense accounts from that one.)

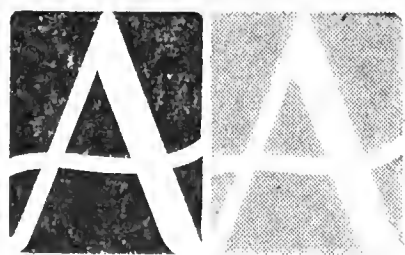
A later issue trumpets a banner headline "Tax-Free Dividends," and then lists such alleged dividends for many of the private utility companies across the nation. In the very finest of type as a footnote to the table are the words, "These dividends are not taxable as ordinary dividend income, but they would be considered in computing capital gains tax." Weasel words, if I ever saw any.

It troubles me to see an organization so closely hooked to government that is militantly going out to fight private enterprise at every opportunity. Could this be one of those situations so endlessly repeated where a group of administrators see an opportunity to expand their influence?

ALWAYS SUSPECTED IT

ACCORDING TO the National Consumer Finance Association of Washington, D. C., men earned 80 percent of the family income in mid-1962—of which 85 percent was spent by women. Largely due to women's longer life expectancy (73.0 years as compared to 66.5 years for men), as well as their money management skills, women own 65 percent of savings accounts, 74 percent of titles to suburban homes, 65 percent of the nation's private wealth. They are also beneficiaries of 80 percent of all life insurance policies.

That old saw about "the weaker sex" ought to be revised.



FARM DOLLAR GUIDE

BILL INTRODUCED BY SENATOR MUSKIE (Maine) and Congressman Cooley (North Carolina) would impose acreage allotments on potato growers but without price supports. Severe penalties provided for overplanting. Secretary of Agriculture would proclaim marketing quotas before January 1; growers would vote before February 1. Two-thirds eligible voters or growers of at least two-thirds of crop would put it into effect.

IF YOU GROW WHEAT, regardless of your acreage, be sure to vote in the May 21 referendum on government program for 1964 wheat. If two-thirds of growers approve, strict production controls will be imposed and wheat price supported at two levels, higher for domestic use, lower for export.

If vote is "Yes" there will be no 15-acre exemption, or 30-acre exemption for wheat fed on farms. Small wheat growers (under 15 acres) can vote, but must notify county ASC committee of intention at least seven days before date of vote. You do not have to vote "Yes." You do promise to participate in the program if it carries!

Government will pay growers for reducing acreage. Small growers can quit entirely. Farm Bureau says vote "No;" Farmers' Union and Grange favor plan. Northeastern growers object to controls because there is no surplus of soft winter wheat grown here!

PROSPECTS ARE FOR AN INCREASE IN BABY CHICKS OVER LAST YEAR. One guess is 5% more than '62 from March 1 to June 30. Also looks like more TURKEYS and probably lower prices in fall.

IN FIGURING CORN POPULATION, plant about 15 to 20 percent more kernels than you want plants. For example, plant 20,000 kernels if you want 16,000 plants per acre.

FEDERAL REGISTRATION OF ALDRIN for use on land to be planted to Irish potatoes has been discontinued. Potato growers can still use it at own risk, but potatoes are subject to seizure by government agents if aldrin is found in them.

For control of wireworms or white grubs, dieldrin at 2 pounds actual or chlordane at 5 pounds per acre are recommended.

The Song of the Lazy Farmer



MY NEIGHBOR'S having mental pain because we've had a week of rain; he claims that he's so far behind in all his work that he won't find the time to catch up 'til July, no matter how hard he might try. So far, he says, this spring's as bad as any we have ever had, a statement he's made annually for thirty years or more, by gee. The funny thing is that next week he'll find the outlook just as bleak because he'll claim it's much too dry; he'll show up here to moan and cry that we can't grow no crops at all unless the rain begins to fall.

The thing that I would like to know is why a man would worry so about events he can't control; such fussing simply takes a toll of patience, health, of pep and zing and never changes anything. A man who lets the weather get his goat until he's all upset should not be farming anyway, 'cause he'll

get prematurely gray. In this profession you must see things kind of philosophic'ly and when a day is bright with sun so working keeps you on the run, just hope tomorrow might be blessed with rain, so you can get some rest.

CYGON... THE BEST NEW FLY CONTROL IN 20 YEARS

One CYGON spray in dairy barns, poultry houses and animal shelters, controls flies up to 8 weeks or longer ...including flies resistant to all other sprays.*

Now, for the first time since DDT was new, there's a fly spray that keeps on killing flies for months. Under most conditions, only two CYGON sprays can give seasonal control of flies. (Some areas report 3 months' control with one spray).

Flies stay dead

Unlike "knock-down" sprays, flies downed by CYGON are dead. As a matter of fact, flies that come in contact with CYGON do not topple over — only to rise again. It takes some hours for CYGON to "soak-in", but then they're done for ... for good.

Resistant flies too

CYGON kills *all* flies ... including those that are resistant to chlorinated hydrocarbon and phosphate insecticides.

Economical control

Because CYGON keeps on giving control week after week, it puts real economy into the fly control job. And CYGON is versatile. It can be used as a residual wall spray inside dairy barns, poultry houses, hog pens and livestock shelters. It

can be used as a spot spray around windows, doorways, fences ... wherever flies congregate. It can be used on fly breeding areas such as manure.

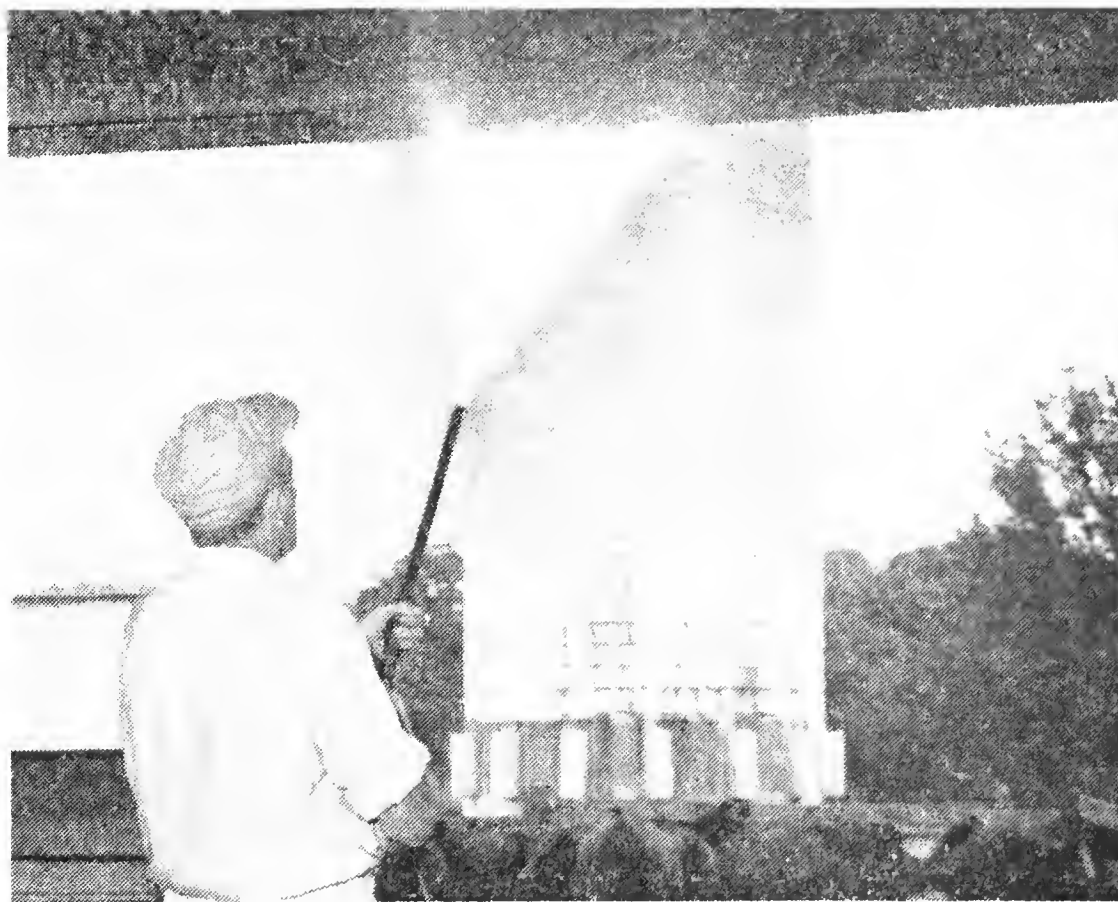
Readily available

CYGON will be readily available this year. Remember, a little CYGON goes a long way ... it gives the *best* fly control.



CYGON is available in pint, quart and gallon sizes. *trademark

AMERICAN CYANAMID COMPANY
PRINCETON, NEW JERSEY



As a residual wall spray or to spot treat fly resting places such as doorways and windows, CYGON keeps on killing flies for weeks. Applied to fly breeding places such as manure, it kills maggots before they become flies.





MASSEY FERGUSON



**NEW
MF 25**

LOWEST PRICED FULLY EQUIPPED

It's all new—everything but the MF triple triangle. Yet, the “25” is the most tested, owner-proved MF newcomer ever! It's a compact, 2-plow diesel for 1-tractor farms, or a thrifty barnyard run-about for bigger farms. Gives you more for your dollar, including Ferguson System handling . . . earth-gripping differential lock . . .

2-PLOW DIESEL YOU CAN BUY

8 speeds forward with synchro-mesh gears so you can shift on-the-go in road speeds . . . and variable-drive PTO. New 4-cylinder engine runs smooth, works cheap. Power, ease, economy—it's all there. The hardest working 24 “horses” in farming—at the lowest possible cost. The all-new Massey-Ferguson 25 . . . don't miss it!

FERGUSON SYSTEM
8 FORWARD SPEEDS
DIFFERENTIAL LOCK
24-HP MF DIESEL
VARIABLE-DRIVE PTO
3-POINT HITCH

BHL



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The good roughage that a cow fails to eat produces no milk! Therefore, the aim of good dairymen is not only to grow and harvest good roughage but to encourage cows to eat a lot of it. The aim is the same, but as the old saying goes, "there is more than one way to skin a cat." So I have been talking with dairymen for the purpose of comparing methods, especially in the summer months, and am passing what I found along to you.

Uses Greenchop

ONE way to get a lot of roughage into the herd in the summer is to bring it to them daily (or twice daily) in the form of greenchop. That's how Duane Hunsinger of Apulia in Onondaga County, New York, does it.

"As soon as alfalfa and brome are a foot high—about the middle of May—I start chopping," says Duane. "I do this until around June 30, when second growth is a foot high and we start chopping it. At times I chop some of the more mature alfalfa and then some less mature on top, thus mixing the two together. Then for about 60 days we chop from 15 acres of sudan, occasionally chopping some corn. From then on it's third-cutting alfalfa and second-cutting sudan, ending up in the fall with alfalfa."

"Which of these do the cows prefer?" I asked.

"Sudan grass is No. 1. When cows are slow to eat I do a little tasting myself. I find that third-cutting alfalfa tends to be bitter and the cows don't like it."

Next we discussed feeding methods.

"I cut around fields and through them to make haying easier. We have a self-unloading wagon and a bunker along the feed lot fence. All the farm is tillable, and the cows have no pasture. I find that the type of bunker with a concrete platform prevents waste, especially in early spring."

"How much trouble do you have chopping in wet weather?"

"Very little, except in the fall. Then I save some dry spots to chop during wet spells. I have greenchop in the bunker early in the morning, but I restrict the amount. This way I feel that all the cows are ready for more at noon. If they eat too much in the morning they tend to be sluggish and waste more. Then at 4:30 I chop another load."

Incidentally, Duane keeps 45 milkers, plus young stock.

Corn And Grass

Roy Temple, who lives near Gouverneur, in St. Lawrence County, New York, solves the summer feeding problem this way. Roy has two farms, presently leased to Leonard Strate and John Gray on a share basis. On both farms silage is fed the year round. Leonard with 55 cows has two 14'x48' concrete silos; John, with around 35 milkers, has one 14'x48'.

Both corn and grass silage are fed, about 30 percent grass and 70 percent corn. "Which do you like best?" I asked Roy.

"The cows like corn silage the better," he said. "I prefer to feed the corn silage when the cows are on pasture, but actually we feed what's on top. When it's time to put up grass silage, it usually goes on top of some corn. And in the fall there is often some grass in the silos when we put in corn."

Roy's cows get part of their summer roughage from pasture. In the daytime they are on permanent pasture which, Roy says, isn't too good, but at night they are rotated on four plots close to the barn which can be used either for hay or pasture.

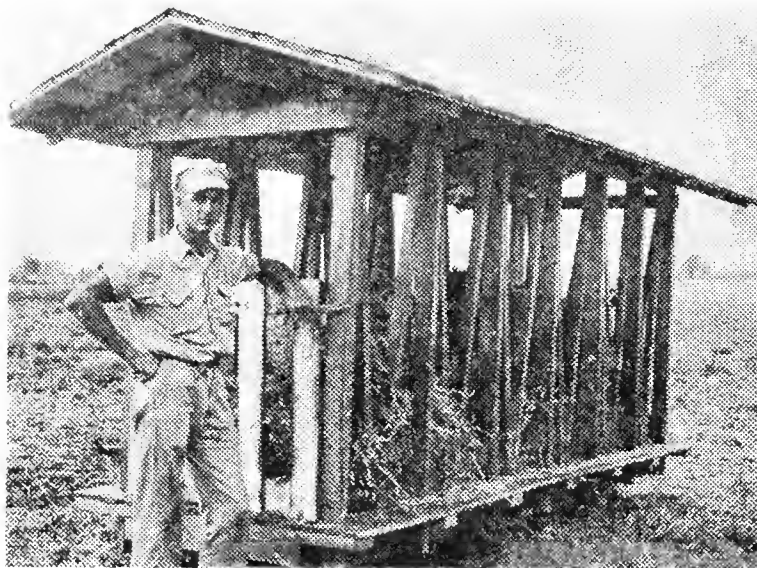
"Does production drop when you change from grass to corn silage, or vice versa?" I asked. "We have very little trouble," was the reply. "The cows prefer the corn, and I think it keeps them in better flesh, but they eat grass silage readily. We feed silage in the barn once a day at night, about 30 to 40 pounds per cow."

Milk production has increased steadily, but not too rapidly over the years. Roy gives part of the credit to more and better roughage, which is mostly alfalfa and timothy, with some birdsfoot trefoil on low spots.

"Silo Pasture"

Erwin Kelley of Camden, New York, also uses 100 percent zero pasture. He grows clear alfalfa — variety DuPuits — reseeding every four years. Then corn is grown for two years, and alfalfa seeded in oats, which are commonly put in the silo.

Grass silage is stored in a pole-type bunk-



Max Stoker stands beside one of the racks from which he feeds hay all summer. His 40 cows eat 10 to 12 bales every day

er silo, 26 feet wide and 150 feet long. It is roofed and paved, and the cows eat their way through it. Erwin says he figures they consume up to a ton of silage for every inch of progress. A tower silo, equipped with an unloader, holds corn silage.

Incidentally, after some experimenting, from two to three inches of ground limestone is spread on top of the grass silage. This is scraped to the black-topped floor as the cows eat their way into the silo, and is hauled out and spread with the manure.

New England Experience

Another dairyman who prefers silage to greenchop for summer feeding is Cecil Stockwell of Great Barrington, Massachusetts. Cecil says:

"In 1963, we plan to feed our herd of 36 milkers with corn silage carried over from the winter feeding season. Our silos include two 14' x 30' and one 16' x 30'. In addition, hay will be fed all summer long, and we'll do some pasturing during the early summer flush. Young stock will be pastured all summer long without any supplemental feed, unless pasture gets short late in the fall—then they'll get some hay."

"Cows are left in the barn during the day in summer and turned out at night; face flies have become quite a problem in our area. In addition to the silage already mentioned, the cows have free choice hay when they are outside at night as well as in the barn."

"We have greenchopped at various times, but it's just too much nuisance. Feeding out of the silo gives a uniform feedstuff and avoids the problem of trying to have something of top quality to greenchop all summer long. Besides, it spoils a forenoon to chop fresh feed for cows every day, and we are operating with a labor force of two men."

Hay All Year

Another way to increase roughage intake in summer is practiced by Max Stoker of Homer, Cortland County, New York. Max feeds hay all summer in racks in the pasture, and finds that 40 cows will eat from 10 to 12 bales a day.

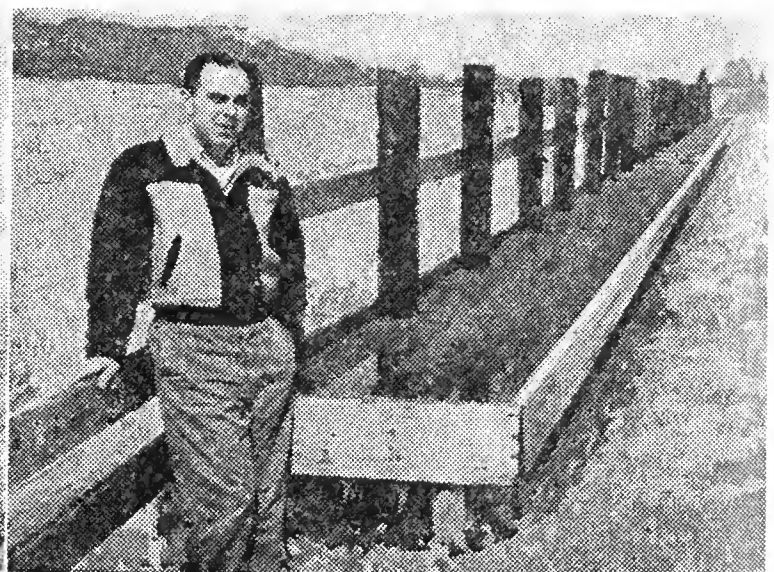
This procedure is due partly to lack of silo space. "I'm thinking of putting up another silo," said Max, "and if I do we will grow more corn."

Hay isn't the only roughage the cows get. They are on pasture, 15 acres of which has been limed, fertilized and seeded in a rotation, also some rougher land in permanent pasture which has been improved.

Max makes no claim that feeding hay on pasture is the best way for everybody. "If it weren't for the extra labor," he said, "I would keep cows in the barn except for four hours a day."

However, the results indicate his present program is a good one. Back in 1956 the average milk production of his herd was 8,500

(Continued on Page 10)



Duane Hunsinger uses this bunker for feeding greenchop; a self-unloading wagon makes the job of filling it a simple one.

— American Agriculturist, May, 1963



SIDEDRESS CORN FOR THAT EXTRA PROFIT YIELD

By the time your corn is knee-high, you may have missed your last opportunity to make a solid profit on the crop. Maybe you *did* plant a high population of a good hybrid. Maybe your stand *is* excellent. You may have every potential for that yield of 20 tons of silage or 100 bushels of grain...but...still fall short because there just isn't enough plant food to do the whole job. The answer...sidedress nitrogen.

Nitrogen the key

Nitrogen is the key to high corn yields. All too many growers fail to produce the yields they could or should, just because they don't supply enough nitrogen to push the crop to its maximum potential.

At least two pounds of nitrogen must be available to produce one bushel of corn...ten pounds to produce a ton of silage. It takes 50 to

75 bushels of corn per acre just to pay the cost of growing the crop. Profits, therefore, come from the extra bushels produced above this amount. The same relationship holds true for silage corn.

Sidedressing is efficient

Sidedressing is an efficient way to utilize nitrogen. The graph below shows you why. During the first month or so after planting...until the plant is 18" to 24" high...the demand for nitrogen is fairly low. Up to that time, less than 10% of the plant's total seasonal requirement for nitrogen has been utilized.

Then, the plant really starts to take it up. In the next month to six weeks...but before ears really start to fill...the plant uses two-thirds of its total seasonal requirement.

When corn is sidedressed before it reaches the knee-high stage, you

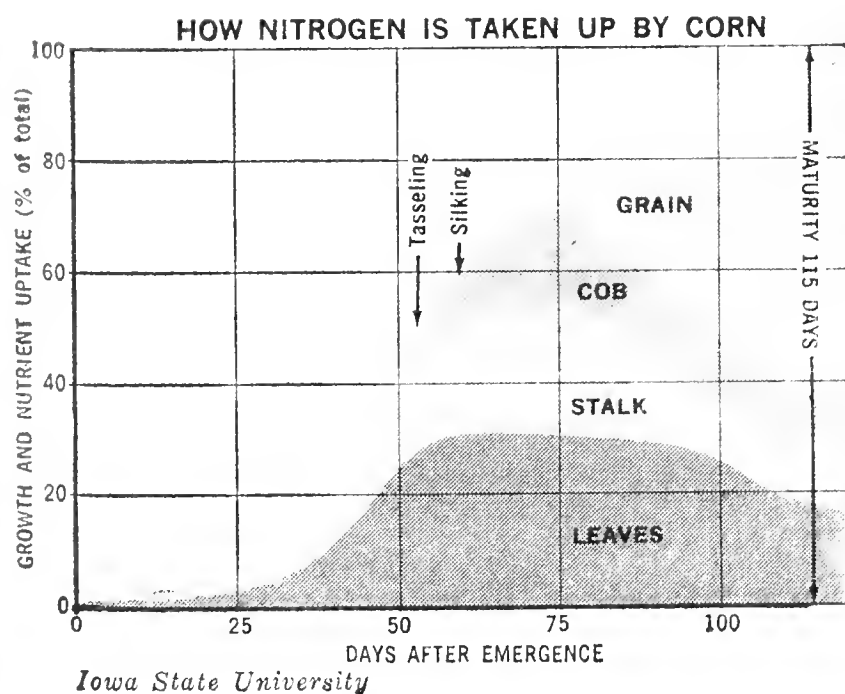
know the nitrogen is there, ready to move right into the plant during its peak feeding period.

When and how much to apply

You may sidedress nitrogen any time from planting until the corn becomes too tall to get through with equipment. Delaying the application, however, may allow soil to become too dry...making it difficult to place the nitrogen in moist soil where it will be absorbed by the plant roots. Earlier application also avoids the possibility of mechanical damage to the corn roots. The best time to sidedress is before plants are knee-high.

How much to apply depends, of course, on the reserves in your soil or the amount already applied this season. For average conditions, profitable sidedressing applications can run from 60 to 80 pounds per acre of actual nitrogen for grain...even more for silage.

Don't miss producing those extra-profit yields just because there wasn't enough nitrogen available for the plants to make them. Don't miss this last chance to round out your total nitrogen needs. Do it by sidedressing.



Either AEROPRILLS® Ammonium Nitrate (33½% N) or AERO® Urea (45% N) is ideal for sidedressing.

AMERICAN CYANAMID COMPANY
PRINCETON, NEW JERSEY



CYANAMID SERVES THE MAN WHO MAKES A BUSINESS OF AGRICULTURE

ROUGHAGE MAKES MILK

(Continued from Page 8)

pounds—it has improved gradually until it approaches 14,000.

"I keep away from a definite ratio of grain to milk," commented Max, "but the records show that the cows eat about 30 pounds of grain for each 100 pounds of milk produced."

A goal to shoot at is good for everyone. Max has one: "I would like to produce 600,000 pounds of milk a year. A year ago we sold 537,000 pounds."

Other Comments

During my visits with these dairymen, a number of comments were made which I found interesting enough to pass along to you.

For example, Max Stoker finds in studying the records on his herd that he has tended to overfeed the lower producers. He feeds liberally, but when a cow drops in production he cuts down on grain. Even so, some cows leave feed, which he sweeps up and gives to the heifers.

Dry cows get grain, too. "I figure on giving them from 10 to 15 pounds of grain a day while they are dry," he says, "and I try to give them a two month vacation."

Everyone knows that cows will eat more hay if it is cut early. Max starts haying about June 10. "But even so," he says, "it's later than I wish by the time we finish."

This is essentially a one-man farm. Mr. and Mrs. Stoker have four girls aged 14, 10, 8 and 1. And, according to Max, "the older ones help some."

The Hunsinger farm could be characterized for size as having a labor force of a man and a half. Duane has solved his haying problem in an unusual way. First he trades work in haying with a neighbor whose farm is at a somewhat

higher elevation, therefore with a slightly later season. This being the case, hay is put up on the Hunsinger farm first. Five or six teenage boys are hired to help, and the haying is done in five or six days. To put it another way, all the hay is cut early!

"We cut down a lot of hay," says Duane. "Usually there is at least a week of fine haying weather early in June. If we make a mistake we figure that no more hay gets wet than were we to try to outguess the weather and cut a few acres at a time." He uses two fans for mow-drying hay, a key item in getting haying done so fast and so early. Putting in hay not completely field-cured helps put leaves and nutritional value in the barn rather than losing them in the field.

Undoubtedly, this extra-early hay harvest makes better quality and helps to make possible a wide ratio between grain and milk.

"In the winter," says Duane, "We feed around a pound of grain to six pounds of milk, and in summer about one to ten."

"You could start a good argument with dairymen who feed grain far more heavily," I commented.

"I know that. But we get good production. Last year the herd of 45 milkers averaged 14,735 pounds of milk. Sometimes I get the itch to set a better record, and more grain would do it, but I figure that our present program leaves me more net profit."

My own conclusion is that good farmers usually figure out a procedure that fits their conditions. That doesn't mean that they never change; they do and I hope the changes and methods of Max, Roy, Duane, Erwin and Cecil may help you in planning as you make changes in your program.

FILLING STATION FOR COWS

This covered feeding area, measuring 45' x 156', is used at Crest-over Farms, Millerton, New York, for summer feeding of both greenchop and hay. Zero grazing was begun on this farm five years ago, but much of the greenchop was wasted when previously fed in a 300-foot-long wood bunker in a hillside pasture.

Concrete-block bunkers for grain and greenchop or silage in the new shelter are 23 inches high and five feet wide. Green feed or silage is provided by self-unloading wagons. Reaching in and down, the cows are unable to waste feed. An average of five pounds of grain is provided to each cow in the shelter, with the balance in the milking parlor; some cows receive 30 pounds of grain per day.

Hay is fed in a two-foot manger 15 feet across a central corridor from the green feed area of the shed. One hundred and twenty diagonal openings (each 16 inches wide) provide access to hay; the slant system prevents cows from pulling out and wasting hay.

The floor is concrete; water is provided in thermostatically-heated bowls.

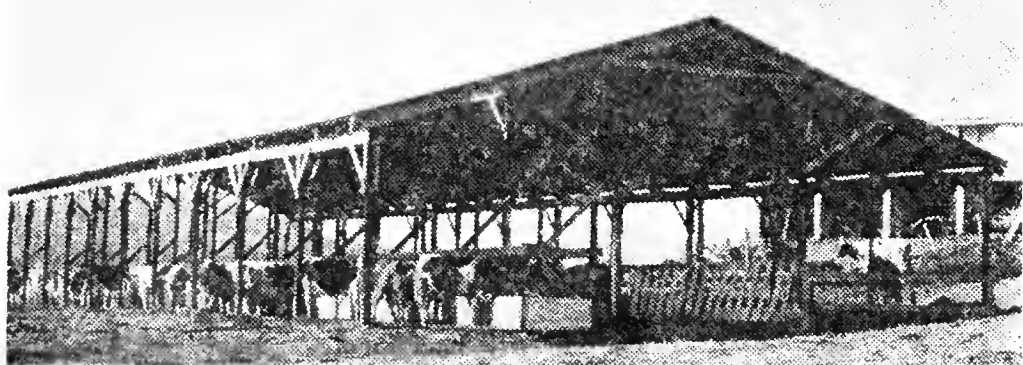
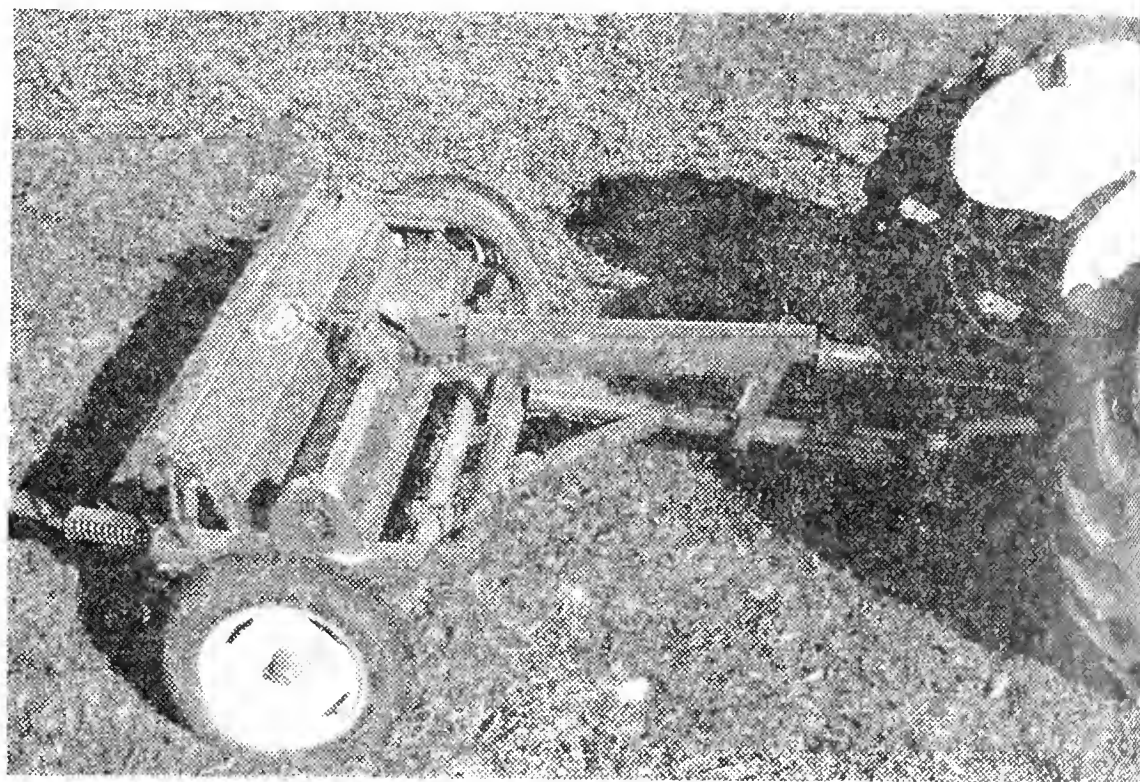


Photo: James Bodurtha



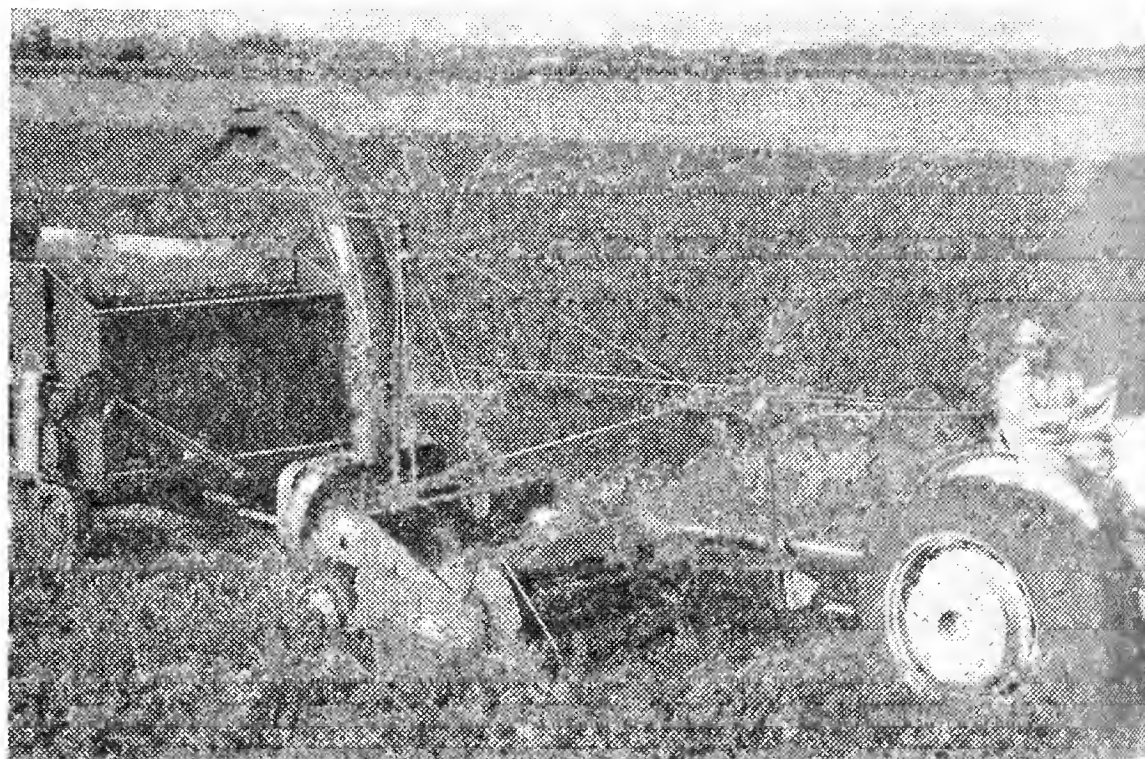
AMERICA'S BIGGEST SELLING MOWER

Ford rear mounted mower—Fast haying pays. Get a good start with a Ford. Improved, greater strength cutter bar. The 8-foot model will mow nearly 6 acres per hour. 6- and 7-foot models available, too! All are designed for narrow or wide tractor wheel spacings. They're full adjustable, have high lift . . . also safety releases. You'll like the easy 3-point hitch, smooth V-belt drive.



FOR THE VERY FASTEST HAY DRYING!

Ford hay crusher—For the ultimate in shortening drying time . . . expect to cut curing time over 50%! Rubber crushing roll running against fluted steel pick-up roll is ideal for those who prefer crusher-type hay conditioning. Works at both 540 and 1000 rpm. Has safety slip clutch. Semi-mounted model works with Ford mounted mower. Pull type for any drawbar . . . uses standard car tires.



LOW COST WITH DELUXE FEATURES

Ford forage harvester—This 3-in-1 harvester has pick-up, cutter bar and row-crop attachments . . . comes with PTO or engine drive. It features 3/8- to 4-inch cut, built-in knife sharpener, quick-shift feed control, 4-edge shear bar and separate drive blower. All this plus 5-position and 3-position axle for 12-, 15- or 18-inch clearance.

FORD 250 HAY BALER



CUSTOM-SIZED...family price!

Barn-filling capacity to meet hurried haying season demands. Up to 7 bales per minute means extra loads in the barn that saves hay crops. Here's capacity to make local custom work profitable.

Priced for low baling cost—to meet family-sized farm budgets, yet built to Ford's high quality standards. Proved on thousands of farms. Owner surveys show 98% satisfaction!

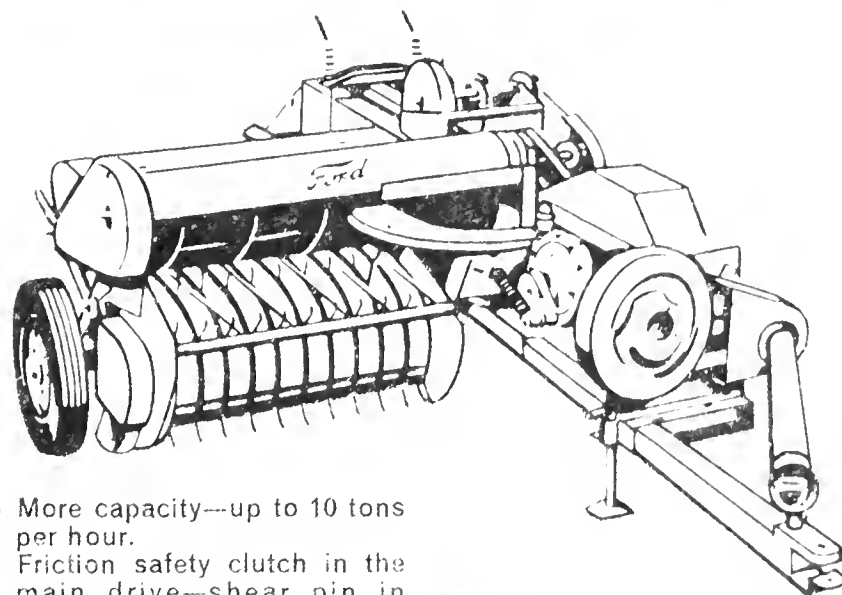
Ask an owner how a Ford 250 performs . . . typical replies: "Over 20,000 bales without repairs." "Baled all summer—missed tying only 15 or 20 bales." "More than 2,000 bales without a miss."

Gentle handling reduces leaf loss—From the easy touch of the wide pick-up to stay-tied knots of Ford's straight bales, hay is handled gently to save more leaves and feed value. Sweep fork feed helps deliver hay to the chamber with gentle, capacity-boosting action that accounts for more bales. But there's more . . .

Tie 'em as you like 'em—Choose a twine or wire tie model. Either way, Ford bales stay tied . . . exclusive Ford twine knotters are equipped with stainless steel bill hooks for extra long life! Ford wire twisters have fewer moving parts to wear or adjust.

Here's more reasons why the Ford 250 baler became so popular: Fewer parts to wear . . . fewer adjustments . . . many sealed-for-life bearings. Flywheel slip clutch protects this baler, permits faster continuous baling. Free floating, power driven pick-up for uniform feeding in heavy or light windrows. Carries enough twine for up to 1000 bales.

Your choice of PTO or 17 hp engine models. Ask your Ford dealer about variable credit terms with up to 4 crop years to pay and as little as 1/5 down. Bale your hay with a Ford 250 this year.



- More capacity—up to 10 tons per hour.
- Friction safety clutch in the main drive—shear pin in sweep fork drive.
- Skid shoes to protect pick-up.
- Hay hold-down for even feeding.
- Dependable knotter.

- Over-running clutch in PTO drive.
- Individual pick-up teeth.
- Sure-action sweep fork feed.
- PTO or 17 hp engine models.

SEE YOUR NEARBY FORD TRACTOR AND IMPLEMENT DEALER

FORD

FOR FAMILY-HAYING TOOLS



FREE ENTERPRISE

YOUR ATTITUDE seems to be that unrestricted competition among farmers will solve everything. But there are some pertinent questions about competition—especially as it currently applies to agriculture—for which I lack the answers. Just because competition has been an agent in bringing us thus far from primitive ignorance and superstition, should we trust it implicitly from here on?

A great deal is made of the fact that competition offers a "natural" solution. Which has to mean it is of essentially subhuman origin and reaches its most uninhibited success among the least civilized people. If its practice in its natural purity is the status most to be desired, then the Decalogue was a sad mistake.

Before the Mosaic Era, the ambitious Hebrew could take over the flocks of weaker or prospering competitors by stealth or treachery or even by manslaughter with immunity—either moral or legal. Such would be competition at its natural best.

Modified Competition

Does anyone say, "Don't be ridiculous. No one even thinks of abandoning civilization." By common consent, then, we agree that "natural" competition requires some modification. Few moderns would advocate a resumption of debtors' prisons or human slavery—two rather common manifestations of our ancestors' free enterprising society not so long ago. That we shrink from having them return as adjuncts of our economy is another concession to the inadequacy of competition, in even less than its natural state.

To come on down to our current situation, I doubt if many would want to sponsor the repeal of the Pure Food laws or the Anti-Trust Act. Why be so foolish as to suggest the idea? Of course, it's an accepted national policy to "regulate" Big Business, and it's likely to so continue.

So be it. But what have we done? We've completely ruined the image of competition as the natural and efficacious solution of current economic ills. We've admitted that free enterprise, if we are to live with it, has to be modified and regulated. And once we've been forced to revise and improve, where should we stop?

What Now?

Now, what of agriculture in this year, A.D. 1963? Evidently you are strong for a "free, competitive market." Do you mean a competitive market just for farm commodities? Surely no one would tell us we live in an economy that is freely competitive. **Not when we witness frequent and sustained rises in factory wages in the face of multi-million unemployment.** Nor when a near-successful increase occurred in steel prices regardless of the fact that steel productive potential was barely half utilized. Obviously, competition is not functioning as an efficient regulatory influence.

Where does that leave us farmers? Do you recommend that we keep on cutting each other's throats? What has that made us in the last ten years? Or, for that matter, in the last fifty years? Do you see any end to this dog-eat-dog game?

Does it make sense for a small proportion of the population to try to maintain a free competitive market in a non-competitive society? Does it make sense to dislodge a family who could make a decent living on a farm and add them to the millions already unem-

ployed and decaying on relief? Could some quarters want the farmer to become the bellwether to lead our artificial economy back to a sounder world level?

Would somebody come to my assistance and answer a few questions? My poor old four-cylinder brain stalls on those steep grades.—Clarence B. Franklin, 17 Trianna St., Belmont, N. Y.

WHEAT REFERENDUM

AT LAST the Grange and Farm Bureau are in agreement about one point concerning the wheat referendum! Harold Hawley wrote (April AA). "Don't sit this one out." We agree. We also agree that the price **could** fall to \$1.00 in the unlikely event of a negative vote, but it probably would not fall below the \$1.22 figure. This is because it would be caught by the support levels on feed grains. There the agreement seems to cease.

Grange Bill

This wheat bill is a Grange bill. The domestic parity concept which it embodies is almost 40 years old. It simply states that the part of an American agricultural commodity which is consumed on the domestic market should bring an American price equal to the level of the non-agricultural prices (parity) and that the remainder should be free to reflect world market prices.

Thus the part of wheat which is sold for bread grains and for human consumption—which is about 80 percent of our normal crops—will be the "certificated" wheat which will be supported at parity. This will be at about \$2.20 here in the Northeast. The remainder would have been free to reflect world market prices except for the fact that it is in competition with feed grains. Therefore the acreage controls in the present program are in reality a part of the feed grain program and an attempt to keep from losing the gains which we have made in the reduction of feed grain surpluses.

The Grange has been pleased that this program has had the vigorous support of the National Wheat Growers' Association for the last decade, and at the present time every general farm organization and commodity group interested in wheat is supporting the program with the exception of the Farm Bureau and those who have made billions storing surplus wheat at the taxpayers' expense.

Allotments Reduced

Since the beginning of the wheat programs, there have been controls subject to a referendum and each referendum has approved the controls. Regardless of the outcome of the present referendum, the acreage allotments will be reduced by 10 percent. Controls are no stricter than before. The 15 acre exemption is eliminated and replaced with the privilege



Here's a flower "tree" welded from metal easily found around the farm. The bows are teeth from an old rake; the pots rest in brackets of farm implement chain.

of growing some wheat within the feed grain allotments. It will not change the need or practice of "policing" or record keeping, win or lose.

The defeat of the proposal would reduce the price of all wheat to a feed grain level and would increase the wheat in storage by an additional 600 million bushels per year. It would seriously damage the Feed Grain Program, increase plantings to 65 million acres, and seriously hamper our foreign trade by permitting prices to drop below our commitment under the International Wheat Agreement. There would be no diversion payments for the 10 percent cut in acreage allotments, and no supports for a producer who exceeds his allotment; producer income would drop \$700 million. No one would receive a parity price for any portion of his production, and there would be no substitute wheat legislation this year, despite Mr. Shuman's assurances to the contrary.

The approval of the referendum will reduce government holdings of wheat (and costs of storage) until we reach a desirable reserve level of 600 million bushels. Eighty percent of the wheat produced will bring 100 percent of parity for a national average of about \$2.00 per bushel.

Acreage allotments will be the same; diversion payments will be continued; wheat will move normally into world markets without the present export subsidy; producer incomes will rise by \$2.3 billion (an average of \$600 per farm); those who depend on wheat for a living will be substantially helped. We will also have a good chance to get some needed dairy legislation.

Mr. Hawley says "We have everything to gain by a NO vote." The "we" may include the Farm Bureau; it certainly includes the owners of storage facilities, but it obviously does not include wheat farmers.—Harry L. Graham, National Grange Northeastern Field Representative, Ithaca, N. Y.

CORRECTION

MR. STILES, in your March issue, has been generous to share the benefits of his western trip with others in the industry. I failed to anticipate widespread distribution of his observations so I must apologize to him and to you for negligently allowing a misinterpretation to become a matter of record.

My esteemed colleagues will be quick to catch as pure coincidence the incongruous association of magnets and traumatic gastritis with control of ketosis. It is remotely possible that magnets would touch secondary ketosis in some herd—but not primary ketosis.

Ketosis (acetonemia) is a metabolic disorder. Like malnutrition, it cannot be attributed to a single cause. The dwindling incidence of this problem under my regime I ascribe to considerations involving: first, kind and origin of ration ingredients, and, secondly, careful modulation of rate of intake.

There is no assurance that my findings would apply elsewhere. But my methods might be used where cattle are congregated in sufficient numbers to lend validity to trials and observations.

The widespread use of proved sires is rapidly lifting genetic limitations in our dairy herds, and the environmental ceiling is often challenged in the area of nutrition. Before present freshmen graduate, I expect to see 1,000-cow herds pass 18,000 pounds of milk.—Robert Ormsbee, D.V.M., Stockton, California

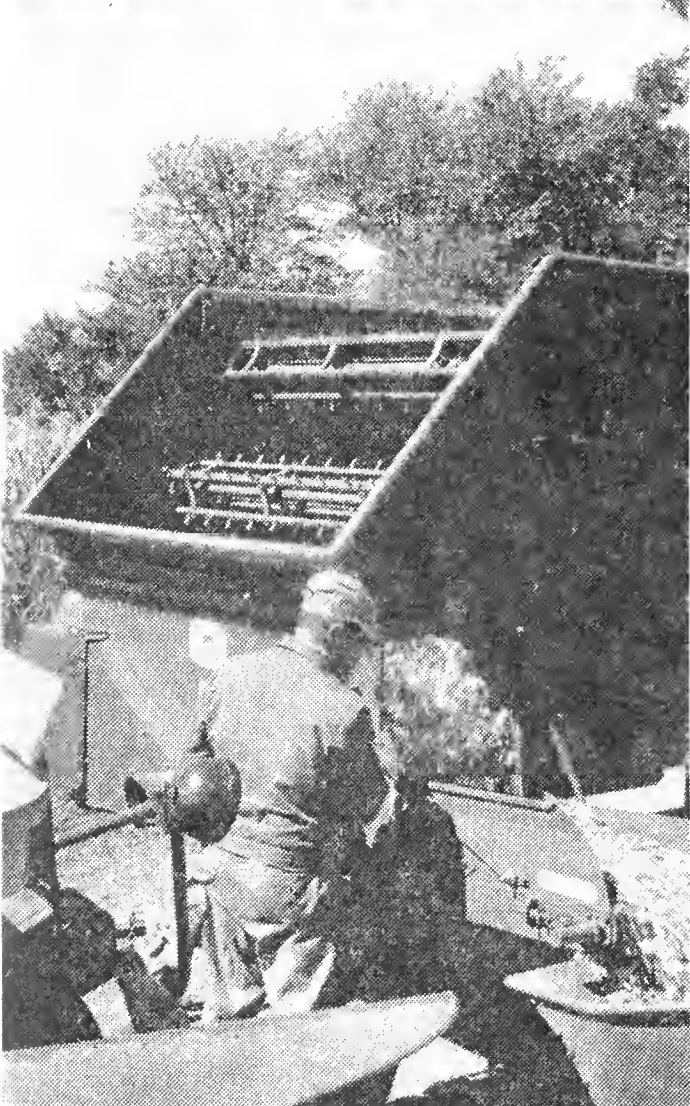
DAYLIGHT TIME

ITHINK YOUR article on Daylight Saving Time is appreciated by farm folks. I believe we are disgusted and discouraged with the whole mess and so inclined to say little about it.

However, if Daylight Saving were made effective in the winter it might mean 24,000 accidents in the morning and also in the afternoon rush.—Low Harvey, Marathon, N. Y.

Indiana cattle feeders and hog raisers report: John, Thomas, and George Kurtz farm 540 acres near New Haven, Indiana. They raise about 350 head of feeder cattle and 400 head of hogs a year. They also raise 250 acres of corn, 35 acres of hay, 35 acres of potatoes (sold for chips), 50 acres of soybeans, 50 acres of seed oats, and 46 acres of seed wheat. Their story below tells why they chose John Deere Equipment for putting up their corn silage.

The Kurtz Brothers—John, George, and Thomas.



"We store about a half-ton of silage a minute."

"The finely chopped material turned out by the 12 Forage Harvester stores better and packs tighter."



"Our John Deere Forage Harvester works fast, steady...chops short"

"We like our John Deere 12 Forage Harvester because it works fast, steady and it chops short. When chopping time rolls around we know the 12 will go out and get the job done right on schedule. On the average we turn out a three-ton load in ten minutes in corn that runs 20 tons to the acre.

"The fine, uniform length of cut of the 12 Forage Harvester does several things. The finely chopped material stores better, packs tighter, and the cattle eat more of it because there aren't any large pieces of cob in it.

"Another feature we like on the 12 Harvester is the reversible feed rolls. And the long gathering chains on the row-crop attachment sweep up even down-and-tangled corn. We lose a stalk now and then, but seldom.

"Our John Deere Hopper Blower and Chuck Wagons give us a storing team easily handled by one man. This combination puts about a half-ton of silage a minute into our sixty-foot silos. We really go for the big capacity in the 115 Chuck Wagon especially when we're opening up fields and it's hard to get another wagon in and the loaded one out."

John Deere design,
dependability, and dealers
make the difference



JOHN DEERE

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Like John, Thomas, and George Kurtz, you can systemize your forage operations with machines from The Long Green Line of Customized Equipment. See your John Deere dealer for complete details—ask him for a free demonstration. Let the convenient John Deere Credit Plan put modern equipment to work for you this season. Remember—when you invest in John Deere Forage Equipment, you're investing in quality equipment.

NEW BARNS IN NEW ENGLAND

These New England Dairymen Found Profit in Change



Laurier Dostie and his daughter Delicska are proud of their cattle, like to keep them clean by periodic brushing. Note the electric cow trainers that also help to do this.

Here are three farm families who decided to make some change in their dairy cattle housing. In the Pine Tree State the author visited Laurier Dostie in Kennebec County and the Kimball Brothers in Androscoggin County. In New Hampshire, he called on Harold Bodwell in Rockingham County. Here's what he found

LAURIER DOSTIE

POLE barns, an earlier trend in dairy barns, are giving way to buildings without center posts — providing greater flexibility, added floor space, construction economies, and easier drive-through feeding. There is a definite trend throughout New England toward replacement of obsolete barn facilities—usually with new barn construction rather than a remodeling program.

As Rodney Martin, H. P. Hood Foundation agricultural engineer, puts it: "There is no cut-and-dried layout for a dairy barn. It must be tailored for the individual dairyman, depending upon the type of roughage used, breed of cows, and capital available."

Up in Kennebec County, Maine, Laurier Dostie, his three grown sons, Armand, Egide, Laurier, Jr., and his daughter Delicska, moved their herd across the road into their new single story, clear-span, 40x190 foot concrete block, stall type, drive-through dairy barn. Settled down in the new quarters, he says: "Farming is a lot different now."

Their old barn is all too typical of New England—crowded, the stalls too small for their registered Holsteins (3½ feet compared with 4½ feet width in the new barn) and the attached sheds, signs of earlier expansion, were full of cows under crowded conditions—due not only to earlier herd expansion but to a change from Guernseys and Jerseys to the larger Holsteins.

Looked Around First

The Dosties visited other dairymen with new barns, pooled the ideas they liked, and, with Rodney Martin's help, drew plans to suit their specific needs. They ended up with a rather unique setup.

The Dosties selected a drive-through barn because they felt that temperature drops would be too drastic in their section (the barn is located on an unprotected hill). Too,

they like the idea of comfortable **inside** working conditions, and they feel they can give their milkers more individual attention.

There are stalls for 33 cows on each side of the barn. At one end is a holding area, next to an attached 6-cow herringbone milking parlor and the milkroom, large enough for the entire herd. Dostie plans, however, to handle the herd as two milking units.

With the milking parlor and milkroom attached to one end of the barn, there is allowance for another 100 feet being added, putting the milking parlor and milkroom in the center. Under the present setup, in warm weather the cows are free to move outside into the exercise yard after milking.

Farm Labor Mostly

Due to the hillside location, the foundation required three feet of gravel fill, which was topped with four inches of concrete. Costs were shaved by constructing their own trusses of pine, and doing their own cement work. Practically all building construction was done by the family with the exception of the concrete block walls. They also installed gutter cleaners and cow trainers.

Adequate ventilation is provided by a large thermostatically-controlled exhaust fan in the center of the west wall. This fan was selected for the size of the barn and the number of cows. Air is drawn through the end louvers in the blind attic, then down through the perimeter ventilation slots located between wall and ceiling into the barn. The slots are manually operated, minor adjustments being made for seasonal control.

Dostie tries to maintain a barn temperature

The Dosties' new barn is made of cement blocks, has stalls for 66 cows.

By C. L. STRATTON

of between 50 and 52 degrees in winter; he finds barn ventilation mighty important. In the old barn the cows were often too warm, temperatures soared into the eighties, and as a result, milkers were not producing to capacity.

The ceiling is sheathed with aluminum, as in most new barns, for ease of installation, strength, cleanliness, appearance, and light-reflecting quantities. It is insulated with six inches of fiberglass for the first six feet out from the wall; the center being insulated with four inches of the same material. The barn is equipped with thermopane windows that neither steam nor frost up, providing interior light, but Dostie plans soon also to add fluorescent lighting.

Easier Choretime

The old barn is now being used to house 45 head of young stock and for storing some 200 tons of hay. Moving hay across the road to the new barn is no problem—a truck is used whenever necessary.

The present feeding program consists of silage in the morning, enough to last all day, topping with enough grain in the evening so the cows will finish it up before the hay feeding. The Dosties follow a zero grazing program in the spring and summer to maintain a more constant flow of milk.

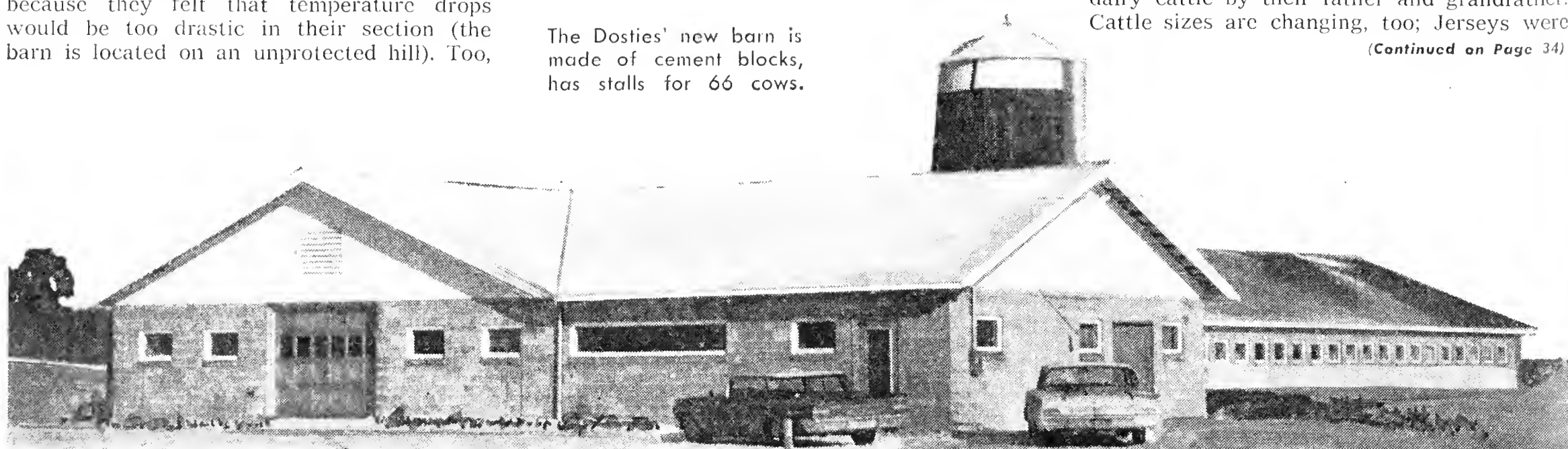
KIMBALL BROTHERS

David and Brian Kimball, Poland Spring, Androscoggin County, Maine, also decided to build a new barn. Said the boys: "The old barn was so crowded we had to push the cows out in all kinds of weather."

The new structure is a 40 x 120 feet, clear-span, drive-through wooden barn with a 14 x 16 foot milkroom attached. It is located in the barnyard, only a hundred feet or so from the old barn.

Like the Dosties' barn upstate, the Kimballs' was too small, dark inside, and had inefficient sheds attached. It had been used for dairy cattle by their father and grandfather. Cattle sizes are changing, too; Jerseys were

(Continued on Page 34)

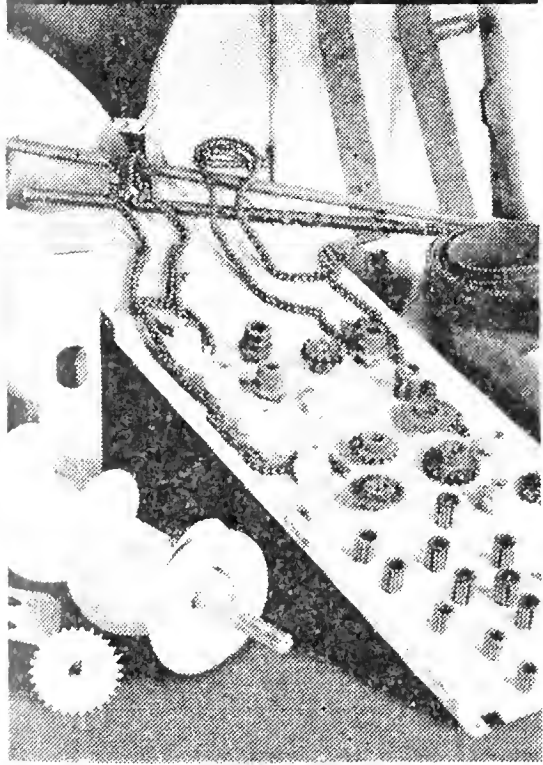


What's
missing
from
the
economy-priced
CASE 200
baler
?

What do
higher-priced
competitive
balers do
that a
CASE 200
can't
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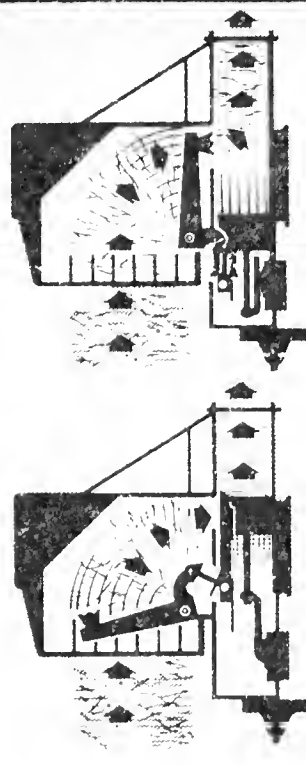
What
does a
CASE 200
do that
competitive
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Some
higher-priced
competitive
balers
claim up to
12 tons an hour
capacity.
What about the
CASE 200
?

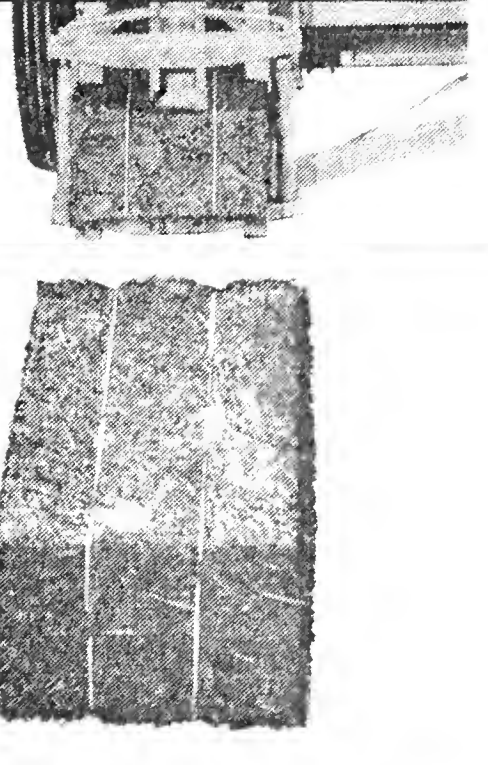


Over 50 unnecessary parts—augers, gears, chains, shafts . . . all replaced by a single efficient sweep fork powered directly by the plunger. Result: smoother action, simpler operation, reduced maintenance costs.

Nothing. But they *can* surge and get out of time—which is practically impossible for the Case, with its direct-connected sweep-fork and plunger that work in counter-balancing action.



It *sweeps* the hay into the baling chamber in one gentle, leaf-saving motion that results in better, more nutritious feed.



If you'd rather have your bales firm, square, easy to handle and stack, watch out for those "box-car" baling figures. The Case 200 will give you up to 1200 trim, solid 14 x 18 bales in an easy afternoon's work.

The price of the Case 200 baler reflects the absence of the parts it doesn't need. In fact, it pays to own one even if you bale only 2500 bales per year. See your Case dealer.

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FRUIT GROWERS

MY TWO cousins (Elwood and Lee Fisher) and myself swap labor and equipment back and forth on our fruit operations that total around 252 acres. A shortwave radio hookup saves us a lot of time — a total of ten radio sets are involved in houses, cars, and trucks.



ALLEN MITCHELL

The spray schedule on my trees hasn't included oil for mites and scale in recent years; I try to tailor its use to need. I start with a delayed dormant spray on apples, then move into scab prevention materials — generally using Cyprex on everything but

Golden Delicious which russets easily. Captan is used on that variety. Materials are concentrated at 3x, gallonage at 4x; I have been considering even 6x or 8x concentrations on early scab sprays when the leaf surface is small.

I have read "Silent Spring," and must admit Miss Carson is a skillful writer, but misleading. It is good to alert people to possible danger, and make growers more conscious of what the label on spray material says. But if we had to get along without insecticides, we wouldn't sell much fruit!

Generally, the most toxic materials are also the most expensive. I don't exactly enjoy the job of spraying with them either, but I use the material that will do the job.

In 1962, we used Sevin as an apple thinner and were happy with results. Air temperatures don't seem to be as

critical with this material as with thinners like NAA. Sevin doesn't require a separate spray as do the hormones, and it seems to give a second chance to thin if the first time around doesn't do the job. I'm like every other fruit grower — I tend to under-thin because it's just impossible to avoid the fear of over-thinning.

On hard to thin varieties like Golden Delicious and Wealthy, we used hormones applied with a pressure gun rather than with a speed sprayer as in the case of Sevin. In my opinion high pressure guns do a much better job when you're using hormones.

For mouse control we hire a custom operator to distribute by airplane corn that is poisoned with zinc phosphide. We could do it cheaper ourselves, but it should go on late in the harvest season when we're already busier than a one-

armed paper hanger. So far, control has been good.

Mouse control has been helped by the use of herbicides so that there isn't much grass around the trees. In 1962 we used a Dalapon-Karmex combination on trees up to 15 years of age. It is a one-man operation to apply herbicide: a boom sprayer is mounted on a tractor's front end loader so the boom can be raised and lowered to "fit" the tree. A three foot swath is sprayed on each side of a row.

My new plantings are semi-dwarf on Malling VII or II rootstocks or spur type Red Delicious that are not on dwarf rootstock, but supposed to be smaller than the regular Red Delicious. Some of the other varieties I have been planting recently include Monroe, McIntosh, Golden Delicious, Wayne, and Rhode Island Greenings. — Allen Mitchell, North Rose, N. Y.

Personal Farm Experience

The items on this page all come from the firing line of farm production.

HAY DRIER

In 1960, we installed a mow drier that has a 60" fan powered by a 10 H. P. electric motor. It moves so much air that a man can't stand up in the A-frame air duct when the fan is running. The A-frame is about 90' long and is made of 2x6's; its dimensions are 7' wide at the base,



HAROLD GILES

5' wide at the top, and it is 7' high.

We dry hay a section at a time; after a section is dry, we line the inside of that section with 1" plywood and block the further end of the next section with plywood across the A-frame.

There are no branch air ducts off the A-frame, but we lead air out by piling bales in such a way that openings are left through stacked bales. Of course, we leave no such openings within 6' to 8' of the outside walls because we don't want any air to get away without being forced through hay.

We build bales to a height of 25' to 27' above the A-frame. Because we sell a considerable tonnage of hay every year, we use a wire baler that has hydraulic control on the bale tension. Bales have to be put up pretty loose, and we have the pressure setting backed entirely off. Unless they are baled loosely, air just won't go through and dry them.

When we're really rolling, we can and do put 20 tons of hay on the drier in one day. The system has worked very well and has given us top quality hay because we get more leaves in the bale and they stay on the stem better when we handle them. We also get better color, and somehow the hay seems to be "softer." Even in 1962 when it hardly rained at all during the first cutting—we still baled the hay tough and mow-cured it because we think we get better quality that way.

One place in the mow—over the housing around the motor and fan — gives us a little trouble, and bales don't dry quite right there. We have learned to field-cure hay before putting it into that small section. We mow and condition hay one morning and then begin baling it the next afternoon; sometimes it runs as high as 40 percent moisture.

We run the fan constantly until a batch of hay seems dry, then turn it off at night and back on in the morning. If the air is at all warm as it comes up out of the hay that morning, we leave it running. The air intake is on the end of the barn away from the house so that noise is no problem. If it were on the other end of the barn, we would have to wear ear plugs!

We have about 100 acres of hay to harvest every year; in 1962 60 acres of it was DuPuits alfalfa. The first cutting of this variety normally goes for grass silage; we always cut our hay acreage at least three times and some of it four times. We fertilize it rather heavily, using 400 pounds of 0-20-20 as a top dressing.

In 1962, we finished our first cutting by about the 25th of June.

Harold Giles, Union Springs, N. Y.

PROCESSING APPLES

We have 80 acres of orchard, including a few pears in addition to bearing and non-bearing apple trees. We're planting all semi-dwarf apple trees; they come into production quicker, and I think they will adapt more easily to the mechanical harvesting which is surely coming for processing apples. Because most of our land is heavy, we're planting Rhode Island Greenings.

Growing processing apples, as we do, is a bit different game than producing for the fresh market. We want top tonnage; the fresh market wants color and appearance. Fertilization, especially with nitrogen, differs considerably — depending on which market you're producing for.

Sevin did a good job for us on thinning Macs and Greenings, but

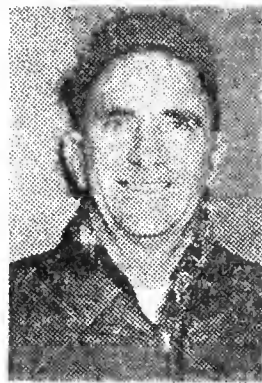
didn't do well on hard to thin varieties like Wealthy, Delicious, and Baldwin. Being an insecticide, it can be included in the regular spray schedule and serves a dual purpose.

We pay migrants 14 cents a bushel for picking apples, but hold back 2 cents a bushel to be paid in a lump sum at the end of the season. Our pickers don't feel as though they have had a very good week if they make less than \$100. — Roy Jenkins, Red Creek, N. Y.

FEEDS CORN SILAGE

Last winter was the second winter I have fed my herd of dairy cattle on corn silage as the only roughage. Our herd size varies some, usually between 62-68 cows.

We grew 75 acres of corn in 1962, picked 35 acres, and used 40 acres



RICHARD ELLIS

for filling and refilling our 20'x50' silo, as well as for some greenchop. Silo filling started October 1 and we filled clear into November. A test of silage showed it at 70 percent moisture. I question whether corn can be too

mature to make good silage.

Sure, some grain corn comes through cattle when it's ensiled late in maturity. We still think that stage is best, though. Corn in the silo and a high proportion of corn in the grain ration fed in our 8 stall herringbone milking parlor seems to us the cheapest sources of TDN, in an area with excellent soils and climate for corn. We've fed hay as the only roughage before, so we've had experience with hay too.

Cows eat about 70 pounds of silage per cow per day—about a ton per cow per month—or 7 tons per cow for the 7 month feeding period. Protein level of grain fed is very important when feeding all silage. Our grain ration is made up of 700

pounds of 50 percent soybean oil meal and 1,300 pounds of ground shelled corn.

From my own experience, I have concluded that butterfat level of milk hasn't been depressed by an all-silage roughage ration. Cows have stayed in good rig during the winter, and we sold an average of 12,800 pounds of milk per cow during the last accounting period of our cost accounts kept with the cooperation of Cornell University.

In the summer, we feed milkers corn cob meal, and pasture makes up the only roughage. At the moment, our cropping system calls for continuous corn and continuous pasture, but this is subject to change as should be most management practices. — Richard Ellis, Aurora, New York

GROWING CORN

We are aiming at 16 to 20 tons of corn silage per acre, but we don't always get it, especially last year when dry weather cut the yield.

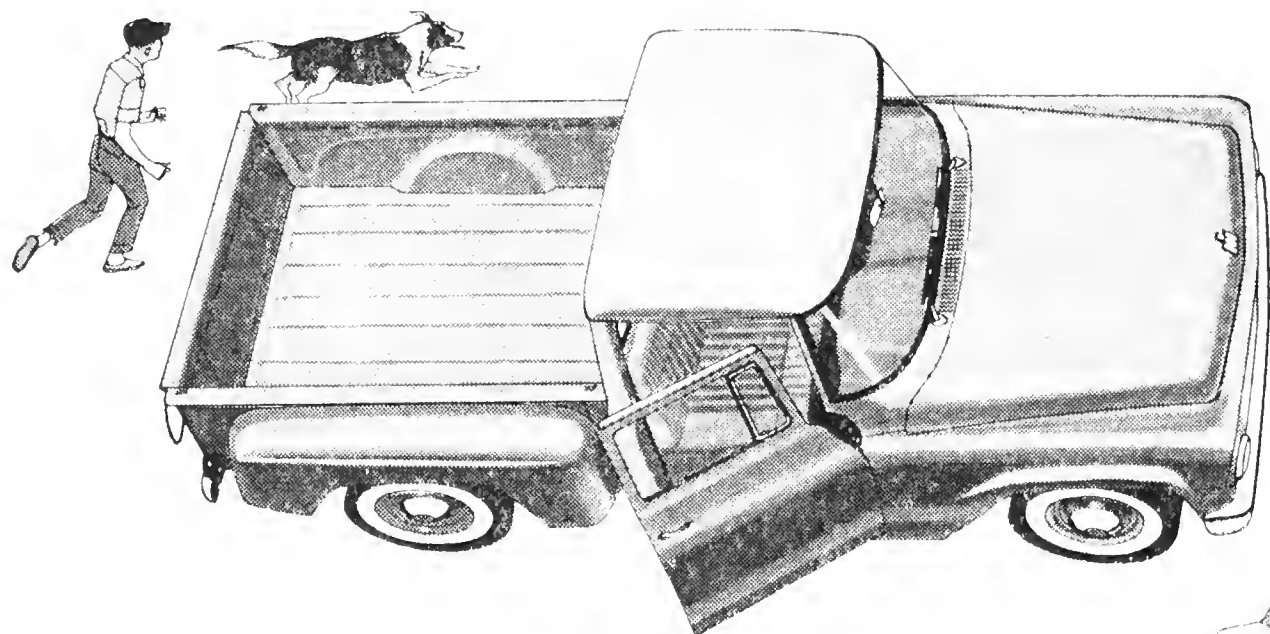
To get more corn per acre we have stepped up the plant population per acre, and have increased the amount of fertilizer. We drill about 450 pounds of 8-16-16 at planting. Last year we used about 125 pounds nitrogen on part of our corn; this was plowed under.

In addition, we plow under a liberal application of manure. In fact, we cover all the cropland with manure every year, and sometimes we spread more on the corn ground after it is plowed and harrow it in.

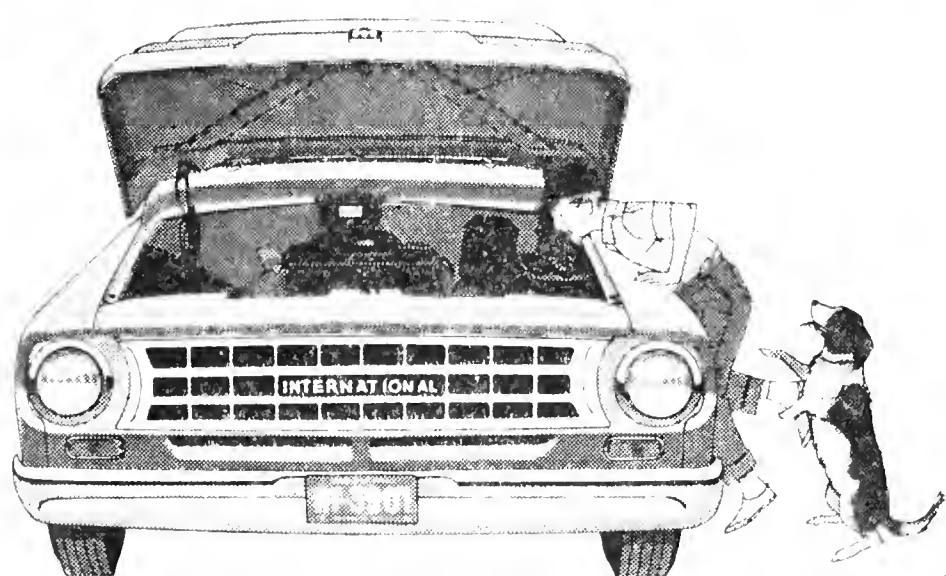
Last year we used a mulcher trailed behind the plow to prepare the ground for planting. It worked well except that it left the ground a bit too loose on our gravelly soils, especially in a dry year, which we believe caused a poor seed-soil relation, and thus poor germination.

We use two varieties to spread the harvest, and put corn on the same ground two years. Then we seed with oats for silage, and leave alfalfa down for 4 to 5 years.

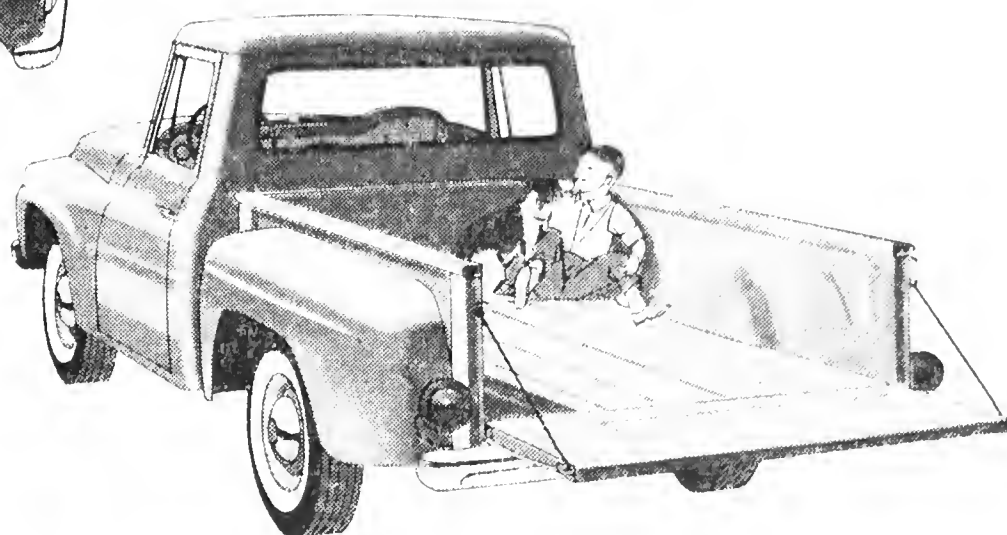
—Bernard Potter, Truston, N. Y.



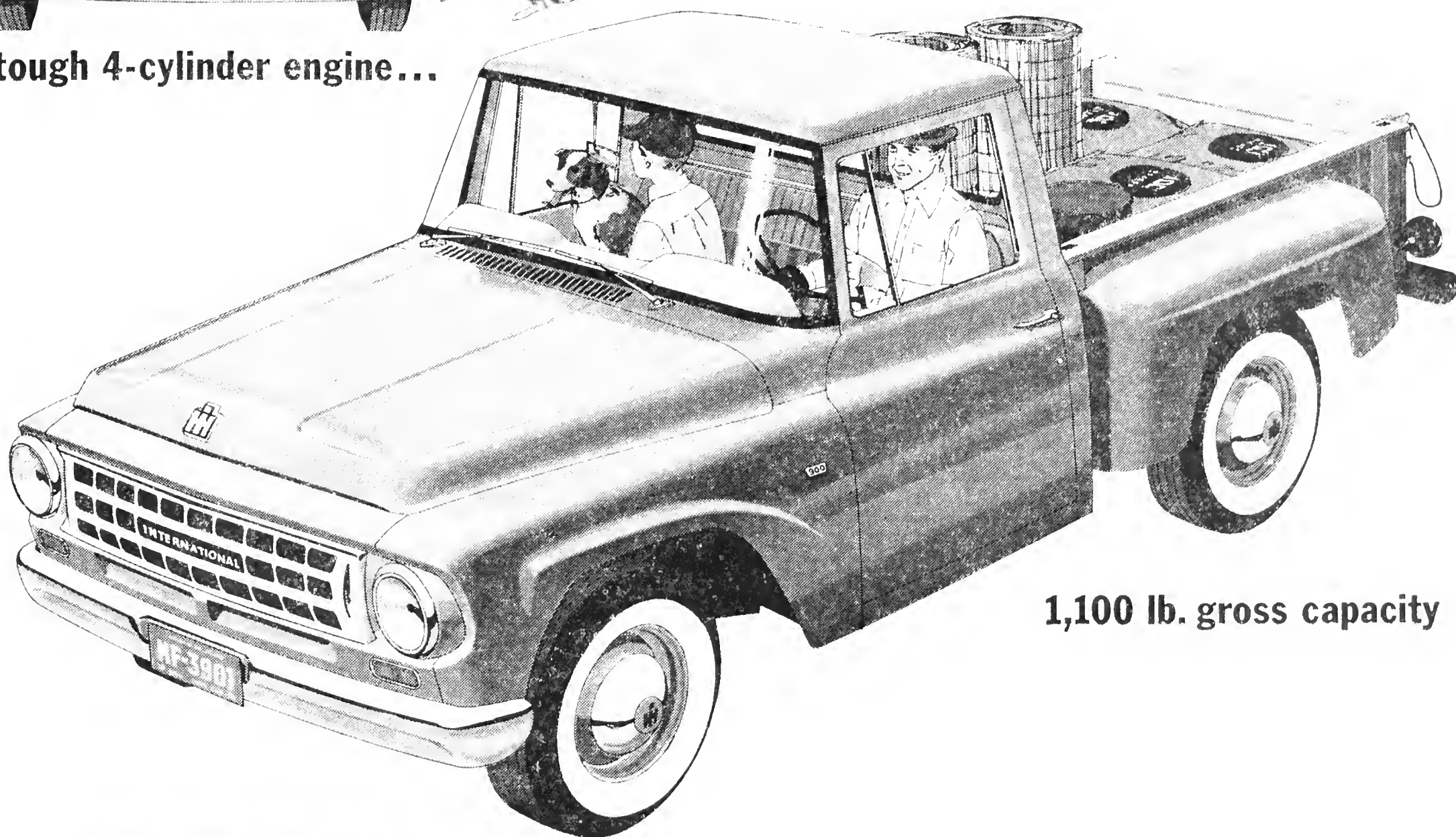
It has a short 107-in. wheelbase...



tough 4-cylinder engine...



compact 6-ft. body...



1,100 lb. gross capacity

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COMANCHE™ engine will work hard and long on a gallon of regular gas. You get all this *plus* INTERNATIONAL truck-built quality — the kind that stands up to tough work!

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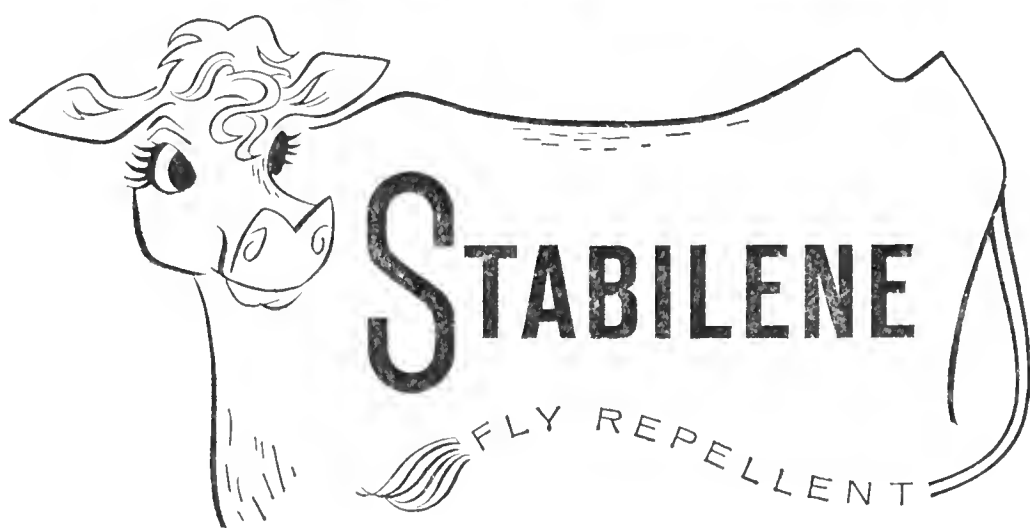
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Experiment Station tests prove that cattle protected with STABILENE fly repellent produce more milk. Animals that are kicking and stamping at biting flies are not grazing pasture grass. Low food consumption causes big losses in milk production.

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Beef animals produce more meat when protected with sprays containing STABILENE. For more milk and meat, it is a paying proposition to protect your cattle in the pasture and in the barn with sprays containing STABILENE. Look for STABILENE in the ingredient statement on the spray container. It is listed as *butoxypolypropylene glycol*.

For more information about STABILENE fly repellent, write Union Carbide Chemicals Company, Division of Union Carbide Corporation, 270 Park Avenue, New York 17, N. Y.

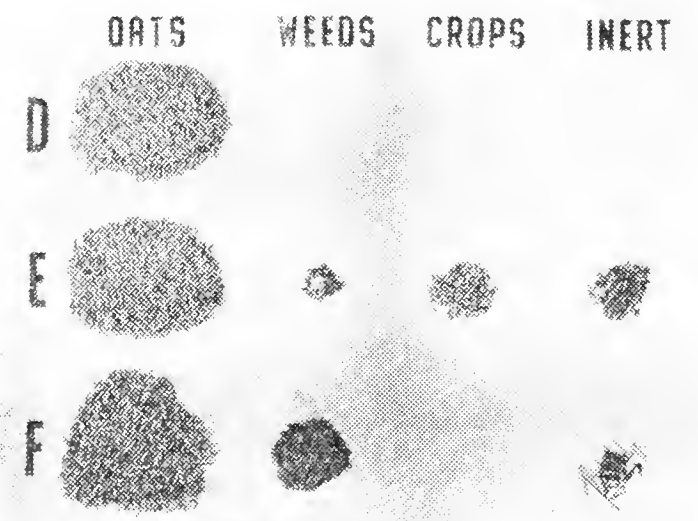


High-quality livestock sprays containing STABILENE fly repellent help you produce more milk and make more money.

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STABILENE is the new trade mark of Union Carbide Corporation for fly repellent.

"As Ye Sow
So Shall
Ye Reap"



Sample D is certified seed with no weed seeds; E and F are poorly-cleaned home-grown seed.

IN A 1961 DRILL box survey conducted in Central Pennsylvania, 268 samples of spring oats and 43 samples of home-grown forage seed were collected from 231 farmers. The origin of the 268 oat samples was as follows: 193 home-grown on own or neighbor's farm, 28 dealer seed non-certified, and 47 certified seed. These samples were analyzed at the Seed Laboratory of the Pennsylvania Department of Agriculture. The oat samples were also planted in test plots on the Agronomy Research Farm of the Pennsylvania State University.

Seed Quality

All certified seed germinated 90 percent or better, but only half of the samples of dealer non-certified seed germinated that well. One out of each ten samples of home-grown oats germinated less than 50 percent. The average sample of farm-grown oats would add over 12,000 weed seeds per acre. Only one out of each 15 samples of home-grown oat seed were weed seed free, while less than one out of five lots of dealer non-certified oats were weed seed free. In

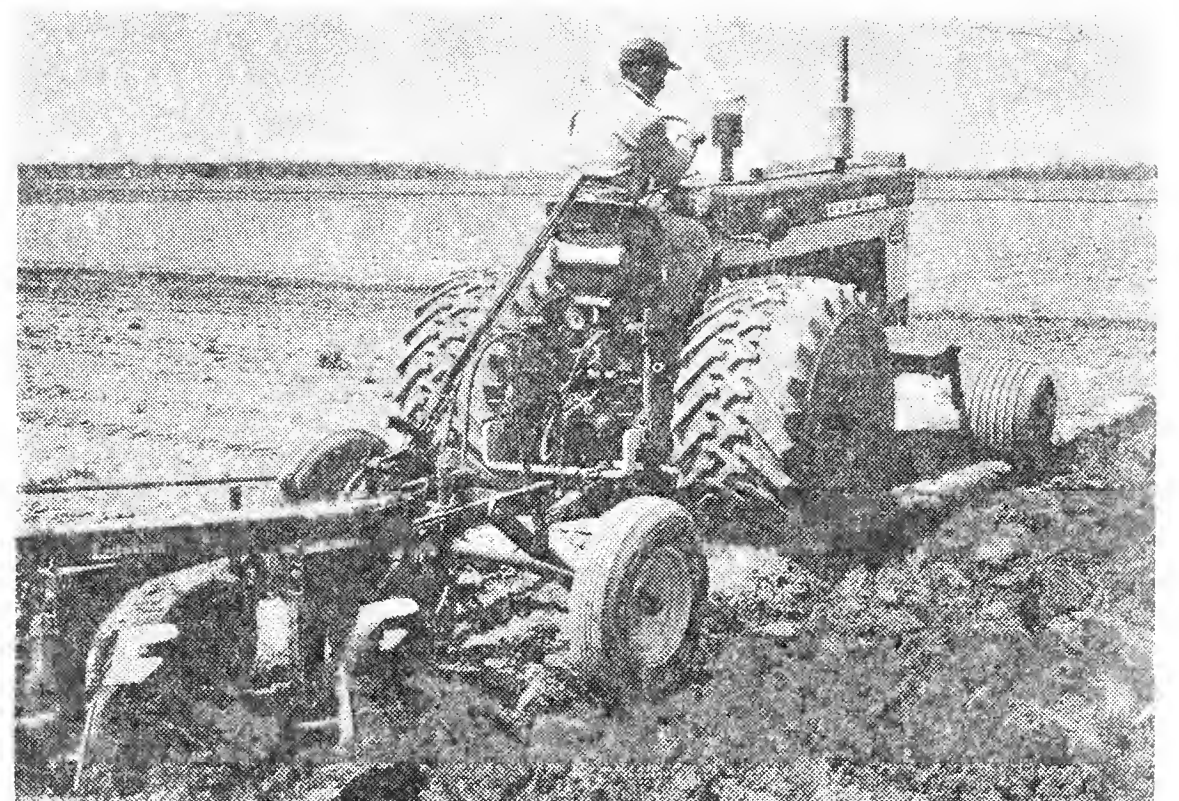
contrast, 85 percent of the samples of certified oats were free of weed seeds.

On the basis of high germination and low weed seed content, only 25 of 193 samples of home-grown seed and 4 of 28 samples of dealer non-certified seed could be considered equal to certified seed.

In our replicated yield trials the average lot of certified seed outyielded the average lot of home-grown seed or dealer non-certified seed by at least 5 bushels per acre. The additional cost of certified seed oats is far more than recovered by the extra yield.

How can one be sure of securing good seed? The easiest way is to purchase certified seed of the desired variety. If home-grown seed is used, secure a **complete seed analysis** prior to planting. Check with your county agent for details in your own state.

The cost of seed is only a minor part of the total cost of producing a crop. It just doesn't make good sense to risk all the other costs by using poor seed. — *Profs. McKee, Pasto, and Campbell, Pennsylvania State University*

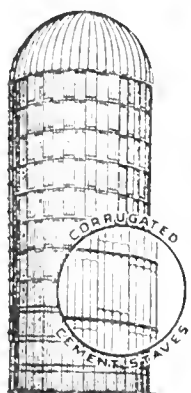


Big, flexible tires that carry low air pressures are being used in soil compaction studies at the Ohio Agricultural Experiment Station. Rear tires measure 46 inches in diameter, 24 inches wide, with 16 inch rims. In studies, sinkage of the low pressure tires was just over two inches; with the conventional tire it was just over five inches—more than twice that of the low pressure tire. The trial was made when the soil was in a high moisture condition after plowing.



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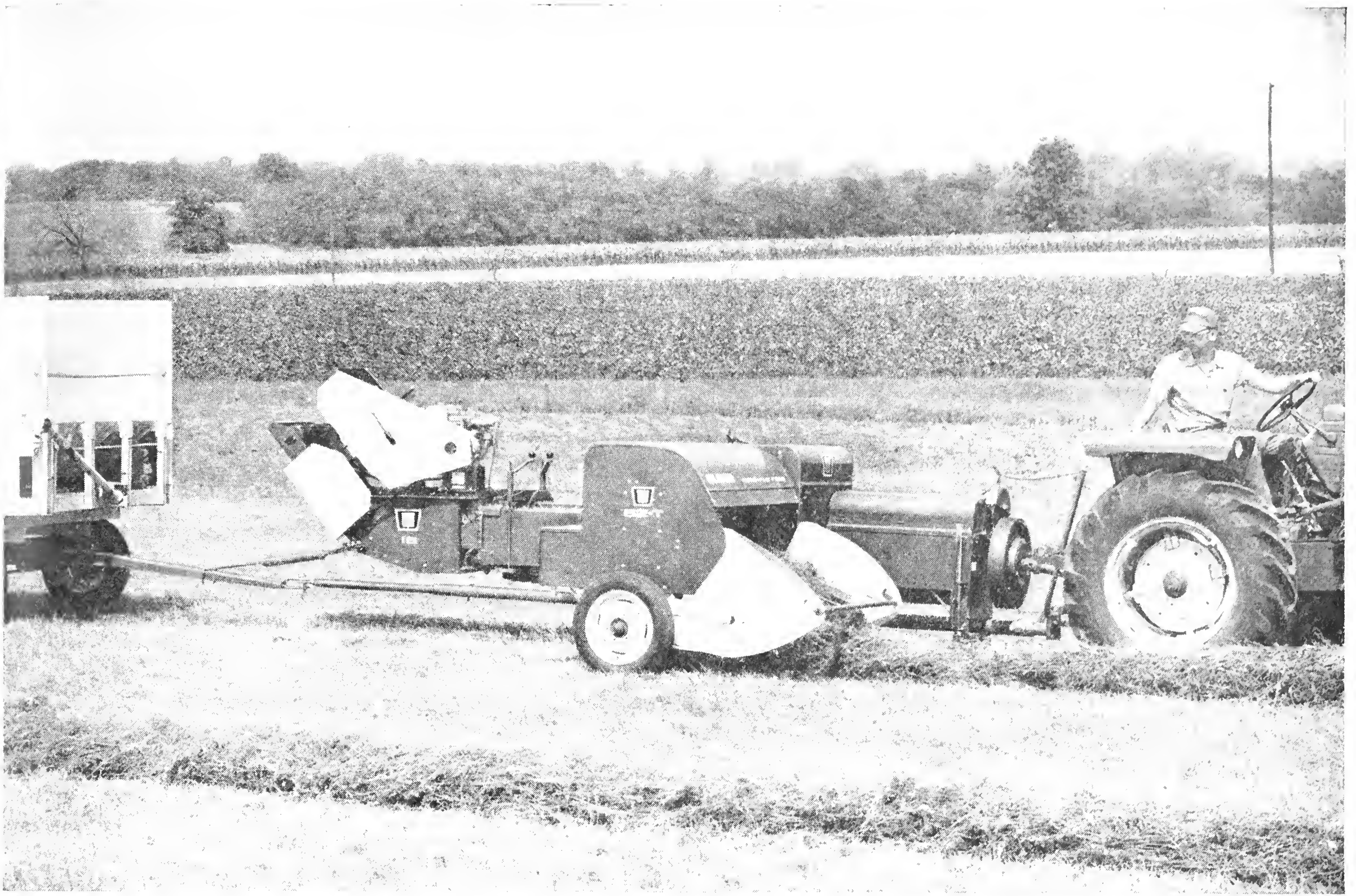
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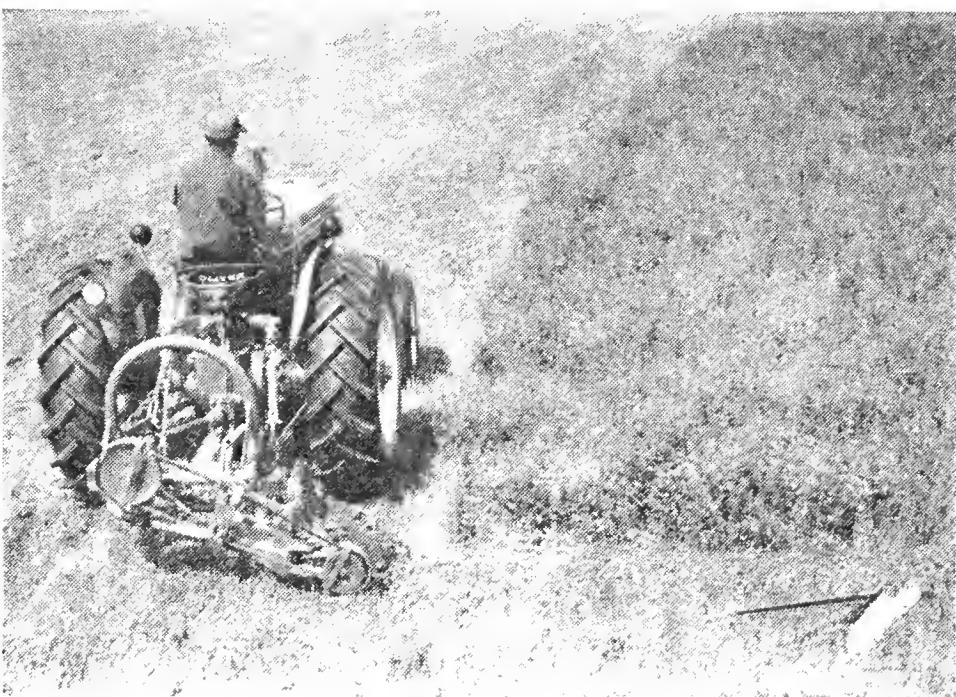
Close-coupled Oliver 62 design gives you a PTO baler that follows right behind your tractor. It's easy to watch the pick-up, simple to keep it centered on the windrow, even around curves. You keep the tractor close to the windrow but out of the hay. "Pivot Balanced" PTO shaft rolls smoothly during turns and transmits power stead-

ily. Clatter and vibration are cut to a new low. See the 62 hitched to a tractor and you'll see the difference.

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Look for this sign,
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dependable service and genuine Oliver parts.





Fly Control On The Farm

By **AUSTIN FRISHMAN** and **JOHN LLOYD**

Research Assistants, Entomology Department, Cornell University

FACE FLIES and houseflies will be troublesome to dairy farmers this summer—the housefly in and around the barn, and the face fly on pasture. This year the recommendations for controlling houseflies, face flies and horn flies are basically the same as last year.

The simplest and most economical program is a daily application of $\frac{1}{2}$ percent DDVP (Vapona) bait applied to each cow's face, supplemented once a week by baiting the inside of the barn. It is essential that the bait be applied with the correct equipment and in the cor-

rect manner; a commercial hand sprayer specifically built for face fly control should be used.

The sprayer has a stop on the plunger rod so that a single stroke sprays about 1/6 ounce of bait. This is the correct amount for one cow. Hold the gun about one foot from the cow's head so that one stroke covers almost from poll to muzzle. Move the sprayer as you treat so that most bait is applied between the eyes and down to, but not on, the muzzle.

Treat in the morning, after milking, while the cows are still stanchioned. Loose-housed cattle will shy away before you can adequately spray them. Three strokes per cow, one on the head and one on

each side of the back, will give better control and will also control horn flies if applied daily.

To bait the barn, use the same sprayer and material. Walk around the inside of the barn applying one face fly sprayer stroke (1/6 oz.) to the wall every three or four feet; horn flies will also be controlled by this inexpensive program.

Begin treating as soon as face flies are seen in May and apply daily during the first week. Subsequently, during periods of cool weather, application every other day may be sufficient. However, from early July to late August, in the peak of face fly season, plan to apply every day. No bait should be applied to cows on rainy days because it will wash off, and face flies don't bother cattle during rains.

Remember that DDVP liquid baits rapidly lose strength in storage—only fresh baits should be sold, and farmers shouldn't store it more than a month. The dry DDVP baits have performed excellently and are to be preferred; the dairyman merely adds water the day before using. Such dry baits, to be most effective, should contain less than 1 percent DDVP. The amount of water to be added will then be minimal, resulting in a high viscosity liquid bait which will be "syrupey" and perform well.

Residual Sprays

Residual sprays are also used to control houseflies; dimethoate is still the best one of this type. Apply as a 1 percent spray at the rate of one gallon of finished spray per 300 square feet on all surfaces on which flies light—ceilings, partitions, stanchions, posts, etc.

All barn spraying work should be done at comparatively low pressures, that is 80-100 pounds per square inch, preferably using two 6506 Spraying Systems nozzles on a "broom." The first application should be made as soon as flies become annoyingly abundant, usually early June. In some cases one application may do the job for the entire season, but a second application in August or the beginning of September may be necessary.

With all barn sprays avoid contamination of feed, water, and milking utensils. Cover drinking cups and mangers during spraying, and clean out when the job is done.

Dimethoate is approved for use in dairy barns as well as buildings
(Continued on Opposite Page)



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"If there's anything I can't stand,
it's a poor loser."

(Continued from Opposite Page)

housing beef, swine, sheep or horses. All animals should be out of the barn, though, when spraying with this material. Use one gallon of 50 percent dimethoate "Cygon" emulsifiable concentrate per 50 gallons of water to make the 1 percent spray. If spraying is thorough, almost as good results will be obtained with $\frac{1}{2}$ percent dimethoate (2 quarts of 50 percent emulsifiable concentrate per 50 gallons of water). If a second spray is necessary in mid or late summer, use the $\frac{1}{2}$ percent mixture.

"Whitewashing" and fly control can be accomplished at the same time by mixing 1 percent dimethoate into the whitewash as it is agitated in the sprayer. Do not use ordinary lime whitewash because its alkalinity deactivates dimethoate —

use a neutral material such as "Carbala."

As reported in the past, baited ribbons (Geigy Snip Fly Bands) may also be used. The ribbons contain a sugar bait plus the insecticide Dimetilan and are hung by both ends in a loop from the ceiling. Use at least one ribbon for every 100 square feet of ceiling; no fly control will be seen with too few strings.

If ribbons are hung in May before flies become numerous good control should result for the whole fly season. If you wait until flies are very abundant in the barn, you'll have to use three ribbons per 200 square feet of ceiling. Snip Fly Bands are approved for all livestock buildings including dairy barns and milk rooms, but don't hang them directly over milking utensil storage

racks, or over bulk tanks or milk cans.

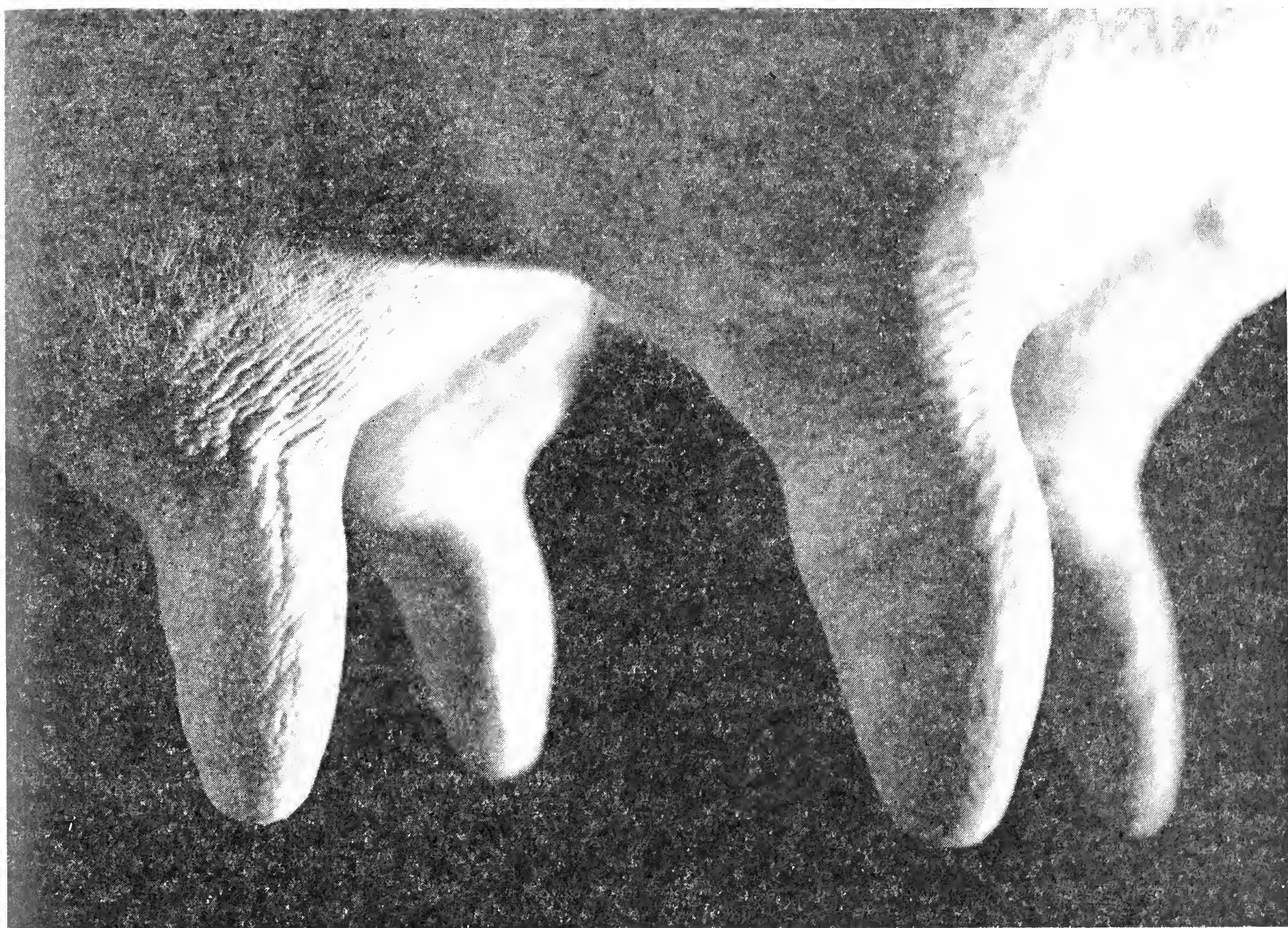
Other Methods

Oil-base cattle sprays or "wipe-ons" for the face (pyrethrum, synergist, repellent) will kill or repel some face flies, but are not adequate through the summer period of severe face fly annoyance. Crag Fly Repellent has more consistently given some protection from face flies than have other repellents; Ciodrin spray gives some protection against face flies. Those who use oil-base cattle sprays as the primary general fly control measure should also apply face fly baits through the face fly season.

Any beef cattle that can be treated regularly also should be bait sprayed; use a power sprayer on beef cattle and dairy heifers to ap-

ply one burst of spray (one twist of the handle to "on" and then to "off") per animal. Use a thinner bait (50 percent water) and apply two or three times a week when cattle are held in a corral or a fence corner. The bait should contain 0.5 percent DDVP or 0.5 percent Ciodrin.

It cannot be over-emphasized that prompt disposal of manure and frequent barn cleaning are necessary if satisfactory fly control is to be obtained. Killing adult flies alone is not enough. Maggots of highly resistant flies cannot be killed by insecticide treatment of manure; such treatment only worsens the resistance problem. Nevertheless, on many farms manure treatment with Diazinon or ronnel (Korlan) is still effective and will help to reduce fly numbers.



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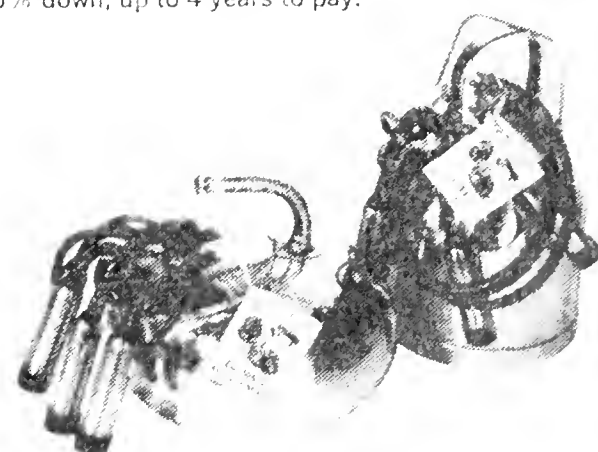
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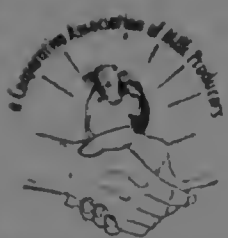
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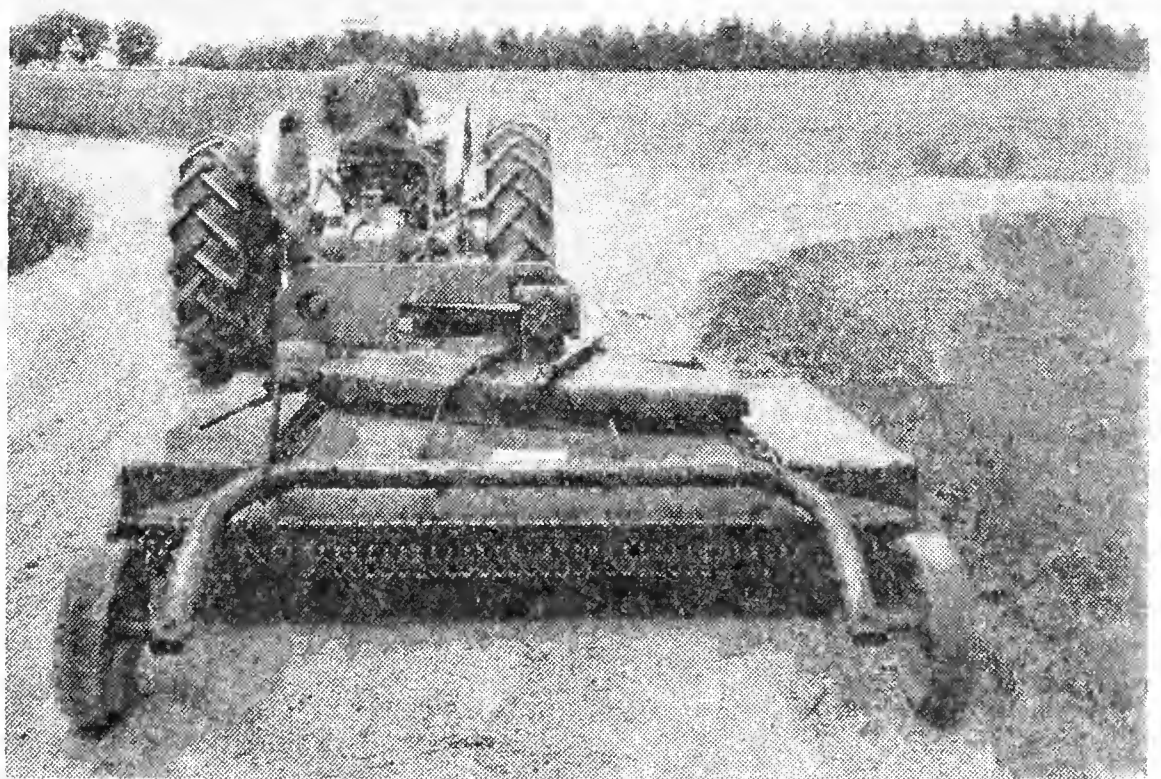


Photo: Ford Motor Company

Here's a 7 foot rotary cutter that really tears up brush, crop residue, or grass.

ROTARY CUTTERS

By
TOM
CLAGUE

IS THE rotary cutter just an overgrown lawnmower? Or will it become another machine to earn a place of significance in the ever-growing stable of equipment that high-speed, high-production agriculture requires? Only time will tell — but it may be here to stay.

In fact, the rotary cutter is already well established for several uses. Chopping crop residues to promote insect control and easier tilling is an important one; clipping pastures and mowing roadsides is another; clearing brush and topping vegetables are other jobs this machine takes in stride.

But the rotary cutter may also have promise as a kind of harvesting machine. At the last national meeting of the American Society of Agricultural Engineers a paper was given on a rotary cutter that cuts, conditions, and windrows hay all in one operation.

New Importance

Here's a machine that has come into prominence just since World War II—and considerable prominence, too. According to U. S. Census figures, more than 250,000 machines were built from 1955 through 1960, and present estimates indicate that about 50,000 rotary cutters are being built each year. Some of these go into industrial use, but many are used on farms.

The biggest farm use is probably shredding stalks. This is particularly important for cotton, where in some areas the law requires that stalks be shredded for insect control. Corn stalks are also shredded to help control the corn borer. The rotary cutter may also have some tillage implications—especially minimum tillage.

This is already being seen in the new minimum tillage practice being adopted in the Southeast, called mulch tillage. Here the crop residues are chopped, and planting is done in one trip, with a lister. Seed is placed in the bottoms of the furrows, and the residue is covered by the beds between the furrows. Chopping of the stalks is probably done more often, and more effectively, with a rotary cutter than with any other machine. As minimum tillage grows in acceptance, chopping of crop residue may well become more important—whatever the form of minimum tillage.

Another important farm use is "maintenance mowing" — pasture clipping and mowing roadsides, fence rows, and farmsteads. One of the important off-farm uses is the roadside mowing done by various governmental departments — and it is here that the rotary cutter is providing extra income for farmers. It is not uncommon for farmers to do some roadside mowing on a contract basis along county roads. This makes it possible for the roadsides to be maintained, and at the same time keep public machinery investment down.

Clearing land of brush is a job that the rotary cutter does well — amazingly well. Undergrowth and young trees with trunks of one or two inches in diameter are no problem at all for rotary cutters; even heavier material has been cleared with these machines. This makes quick, relatively easy work of the nasty job of clearing away brush.

Rotary cutters are pressed into some rather unusual kinds of services, too. They are used to top vegetables before harvesting because they can do it quickly, easily, and economically. Their use is even being explored for topping corn instead of detasselling, in the production of hybrid seed corn.

Some rotary cutters have been offered to the market with devices for delivering the chopped material to a wagon. However, these do not seem to have "caught on" very much. But the use of the rotary cutter as a harvesting machine is just beginning to be explored. They are available in rear-mounted, belly-mounted, and trailing models, in sizes ranging from probably 4 to 12 feet in width.



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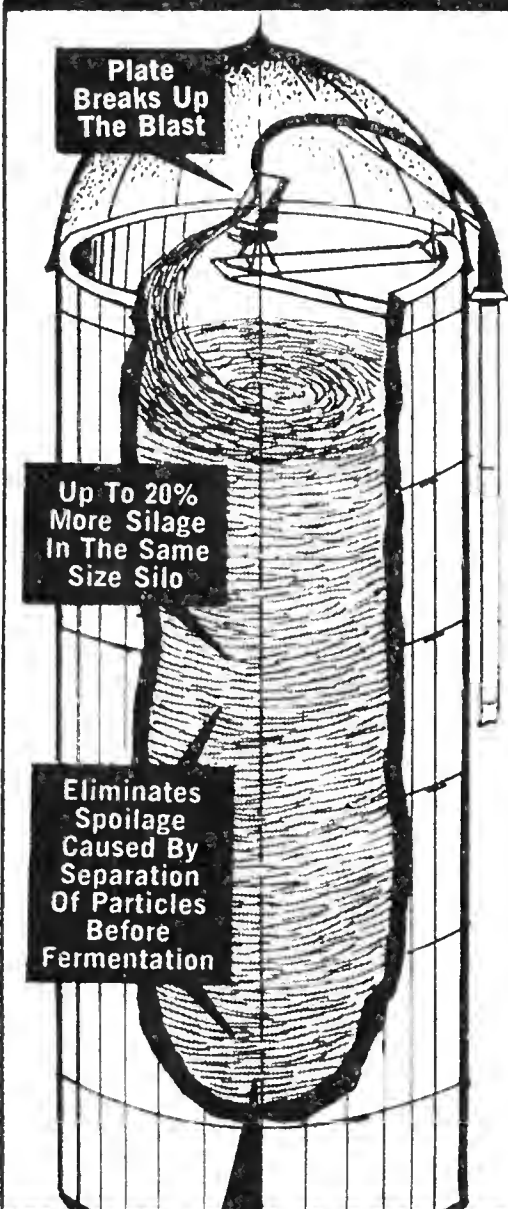
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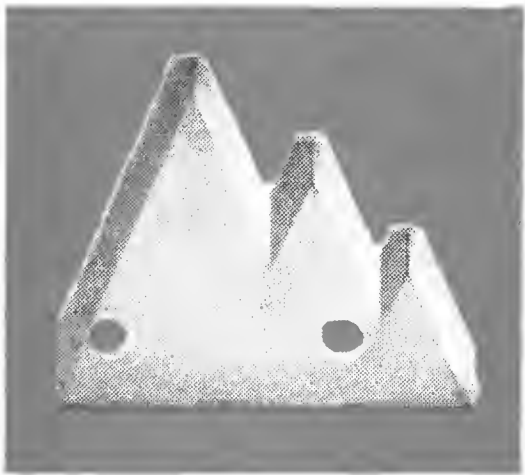
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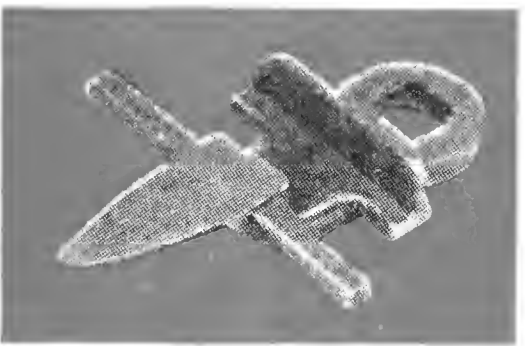
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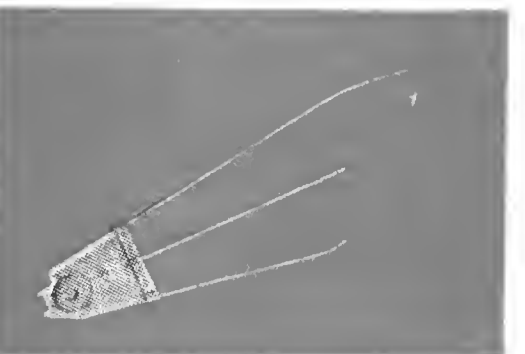
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INTERNATIONAL HARVESTER



Gayway Farm Notes

By HAROLD HAWLEY



I'm Confused

WE SOMETIMES feel misunderstood by our city brothers and sisters. Some of the things we are hearing and seeing about agricultural issues these days are more than enough to confuse a farmer — much less his urban counterpart.

All within a recent 48 hour period — I heard that the dairy industry in New York State was in "critical shape, with disaster facing us all;" read a statement by a substantial farmer urging thought and study in "this crisis"; a respected speaker made reference to "another of those problems of the dairy industry"; and lastly, read statements by several good dairymen that they had never shipped so much milk and had never cashed such large milk checks. While they allowed the price wasn't too hot, the volume they were shipping at the price was still giving them what they felt was a pretty good return.

These four points of view about cover the range. Oh, maybe there ought to be someone out at the end of the line claiming he "never had it so good". Such I didn't meet or hear. Anyway, sure as shooting we had better know which kind of a situation we have before we decide which kind of a program or plan is needed and appropriate.

First off, let's consider those situations where there is a real pinch due to last summer's drought. There should be little disagreement that steps taken to "get over the hump" due to short supplies of feed are short-term measures. The problem and the measures to meet it varies from farm to farm—and is non-existent on many farms. I surely hope no one seriously considers any of the two-price plans or the direct payment proposals (both of which will become long-time programs if enacted) as a solution to this drought-induced problem which I assume will be largely over when grass-time arrives.

It is easier to see clearly the long-range problem if we leave aside this drought situation. Basically, we have a situation brought about by Class III prices set high enough to price us out of part of the domestic market. Following several years of adjustment, in 1959 the dairy industry was in good shape. Government stocks were almost gone and the government wasn't buying. There is no advantage in pointing the finger at those responsible, but some segments of the dairy industry persuaded the Secretary of Agriculture to raise Class III supports in September of 1960—and again in March of 1961. Since then government purchases have been tremendous and **sales in civilian channels have actually declined.**

Last year both farmers and Con-

gress showed a real antipathy to a national supply management program. This in no way changed the desires of the Secretary of Agriculture. It was, therefore, not surprising that he turned down the recent appeal of the dairy interests to lower Class III prices. Why should he? He now has some of the "spokesmen" for the dairy industry asking for the very thing he couldn't talk us into a year ago—a supply management program.

Adjustment Healthy

The economic adjustment the dairy industry is making to the situation in spite of too high Class III prices, seems to make the arguments of some of the calamity howlers less than convincing. January 1 the U. S. dairy cow numbers dropped 2 percent from a year earlier. This is a pretty sharp drop! Sure, I know that production per cow continues to climb, but an adjustment in numbers of cows is a healthy thing.

Rather than grabbing at some of these proposals which are being so freely offered by almost everyone, I'm still convinced most farmers will be appealed to by common sense and logic. They recognize and are doing something about the need to cut farm costs to a minimum.

I think we pretty generally agree on the need for more money and effort on promotion. Possibly if we could just get some of these folks to quit talking quotas the rest of us could quit expanding to protect ourselves. Certainly lower and more flexible support prices for Class III milk are a must—one of the facts of life.

I'm 100 percent for leaving this industry open so anyone can enter or leave it without paying for someone else's retirement. Maybe it is about time we all recognized that quotas do not cause an adjustment. A quota is both a maximum and a minimum. No one is going to let a salable asset like a quota go unused or unsold.

Possibly we should not overlook the moral implications of some of these proposals which suggest payments to a farmer for **not producing!** This "something for nothing" philosophy never built anything worthwhile, and I am very doubtful that it ever will.

"ASK AND YE SHALL RECEIVE"

I asked about ways of identifying heifers in case they lose their ear-tags and you snowed me under with good suggestions. In fact, I finally decided to thank you as a group.

The best notion from my standpoint was this one. Ear-tag the calf and snap its picture along with the picture of a card held over it. The card would contain the calves' ear-

tag number. On the back of the snapshot would be entered the birthdate of the calf, her sire, and her dam. DeGolyer Brothers at Castile, New York, offered this suggestion, which we are going to follow.

Several suggested tattooing, which would be O.K. too. However, this first idea has an advantage for us in that a heifer can be spotted in the pasture without catching her.

Many thanks to all of you. It was most gratifying to hear from so many.

Also, I want to pass on the experience of A. B. MacInness of Litchfield, Maine. He has successfully planted rye after using 2½ pounds of Atrazine the previous spring. Whether our conditions are enough like his to use this as a guide I don't know, but we intend to find out. For most of our acreage we are going to band the corn rows with Atrazine, spray with 2,4-D, and cultivate and put on rye grass when the corn is 2-2½ feet tall. We'll try a few acres with Atrazine on all the ground. We'll let you know how wrong we can be when we see what happens this summer and fall.

LIGHTED CHURCH STEEPLES

One of the nicer customs in some of our churches is to light up the steeple or the windows in the evening. Whenever Doris and I have occasion to go around the State at night we see some of these lighted churches, it never fails to give us a lift. It's a little thing, I suppose—but why hide our light under a bushel? As a matter of fact, day or night, many of the churches in our small country towns seem to have a charm and beauty all their own. How fortunate we are! Many of the huge city churches may symbolize architectural perfection, but they can't match the quiet loveliness of some of the houses of worship in the villages that many of us know so well.

RESEARCH OR INVENTION?

For many of us with fall freshening herds, one simple invention could save us an hour or more each day. In order to keep on having fall freshening cows it is necessary for most of us to turn them out each day in order to detect heat.

Of all the gadgets and machines we have on the place about the only machines which actually save us an hour each day are the milking machine and the barn cleaner. While one would hesitate to pay as much for an idea as for a silo unloader or a barn cleaner, yet it would be worth just as much to be freed from the job of turning cows out each day.

Is this something research and study could help us with? I don't know—but I'm plumb sure there are possibilities here of cutting the costs of producing milk by cutting the labor costs.

GUIDANCE TRAINING— FARM STYLE

Guppies, a parakeet, a saddle horse, and water buckets for 70 cows have something very much in common for our nine-year-old. These are her chores, and it is quite gratifying to see her accept these little responsibilities cheerfully and faithfully. Such daily jobs, especially with living things they love, should help build in our children that character we all so much need and admire.

— American Agriculturist, May, 1963



creators of chemicals for modern agriculture



*To grow corn
without weeds*



ATRAZINE^{OR} SIMAZINE

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YOU HAVE ALREADY WON

— if your number on the attached coupon
matches a number on your feed supplier's
Egg Money Master Board

HERE'S HOW: Now's your chance to go for some big money. And the best thing is —you may already be a winner.

All you have to do is take the attached tear-out coupon down to your Terramycin feed supplier and see if it matches one of the numbers on his Egg Money Master Board.

If your number matches, you've won yourself some money—ranging from \$5 up to \$5,000. To claim your prize *and* enter the Sweepstakes, too, just mail the coupon to the winner's address on the coupon.

If you're not a winner, you still can enter the \$10,000 Sweepstakes. Just send in your coupon along with a tag from an egg feed containing Terramycin, or see rule 2.

Don't wait—match your number on your feed supplier's Master Board today... you may come up a really big winner.

\$100,000 TERRAMYCIN[®] Egg Money Contest 11,312 CASH PRIZES

1st Prize \$5,000⁰⁰

10	2nd Prizes	. .	\$1,000 each
100	3rd Prizes	. .	\$ 100 each
200	4th Prizes	. .	\$ 50 each
11,000	5th Prizes	. .	\$ 5 each

plus a

\$10,000

SWEEPSTAKES PRIZE

No puzzles, no jingles, nothing to write

TWICE.

2 ENTER THE \$10,000 SWEEPSTAKES, TOO

—with the same coupon and an egg feed tag (see rule 2)

And here's why Terramycin in Egg Feeds makes you money, too.

Terramycin has been well proved to add substantial value to a laying feed.

The benefits range from improved production and savings in feed to better health and produc-

And for breeder flocks you can expect *these benefits*:

- Better fertility
- Better hatchability
- Better chick livability
- Improved eggshell quality

If you haven't been using Terramycin, you should be getting its benefits today. See your feed supplier for laying feeds with Terramycin.

the problem is associated with Terramycin-susceptible organisms.



Chas. Pfizer & Co., Inc.
New York 17, N. Y.

Science for the world's well-being®

MYCIN®

for Egg Feeds

\$100,000
TERRAMYCIN®
EGG MONEY
CONTEST
WITH
11,312
CASH PRIZES
WIN TWICE
(See details on back)

**THIS NUMBER
HAS ALREADY
WON YOU A
CASH PRIZE**

H 810428

if it matches a number on your
feed supplier's Terramycin
Egg Money Master Board

**CHECK
TODAY!**

WIN

1

YOU HAVE ALREADY WON

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matches a number on your feed supplier's
Egg Money Master Board

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If you're not a winner, you still can enter the \$10,000 Sweepstakes. Just send your coupon along with a tag from an egg feed containing Terramycin, or see rule 5.

Don't wait — match your number on your feed supplier's Master Board today... you may come up a really big winner.

\$100,000 TERRAMYCIN®

Check your number at your feed supplier's and
SEND IN THIS COUPON

- ① If your number matches, mail to:
EGG MONEY WINNERS
P. O. BOX 71, EVANSTON, ILLINOIS
(to claim your matched number prize and to automatically enter the Sweepstakes, too).
- ② If your number doesn't match, mail to:
EGG MONEY SWEEPSTAKES
P. O. BOX 5499, CHICAGO 77, ILLINOIS
(to enter the \$10,000 Sweepstakes only).

Name _____
(PLEASE PRINT OR TYPE)

Address _____

City _____ State _____

[Be sure your feed supplier signs —
he wins a duplicate prize, if you win]

This certifies my egg feeds contain Terramycin:

Name of supplier _____

Company _____

Address _____

City _____ State _____

Be sure (to be eligible for the \$10,000 Sweepstakes Prize) to include with your coupon a tag from any egg feed containing Terramycin or a separate piece of paper on which you have printed, in block letters, the brand name of a Pfizer antibiotic.

\$100,000 TERRAMYCIN® EGG MONEY CONTEST RULES

Here's how to win:

1. Take this coupon to your supplier of egg feeds containing Terramycin and check your number with the numbers on the Terramycin Egg Money Master Board. If your number matches any of the posted numbers, you have won a cash prize ranging from \$5 to \$5,000. Have your coupon verified by your feed supplier (if you win, he gets a duplicate prize) and mail to: EGG MONEY WINNERS, P. O. BOX 71, EVANSTON, ILLINOIS. You'll automatically be entered in the \$10,000 Sweepstakes.
2. If your number does not match, enter the \$10,000 Sweepstakes, anyway. Have your supplier verify your coupon. To include with the coupon a tag from an egg feed containing Terramycin or a separate piece of paper on which you have printed, in block letters, the brand name of a Pfizer antibiotic. Mail to: EGG MONEY SWEEPSTAKES, P. O. BOX 5499, CHICAGO 77, ILLINOIS.
3. Coupons must be postmarked no later than midnight, August 31, 1963, and received no later than midnight, August 31, 1963, to qualify for either the matched number prizes or the Sweepstakes drawing.
4. The awarding of matched number prizes and the drawing for Sweepstakes Prize will be made by Advertising Distributors of America. Decisions of judges final. Entries must be mailed to the proper Post Office address to be considered winners.
5. Anyone in the United States who raises poultry (including employees) may enter except employees (and their families) of Chas. Pfizer & Co., Inc., its advertising agencies and its judging organization. Contest void in Nebraska and Wisconsin and wherever else prohibited by law. (If you are a resident of Missouri, Florida, New Jersey or a state having similar laws, you may — instead of going to your feed supplier — complete your coupon and mail it to: Egg Money Winners, P. O. Box 71, Evanston, Illinois. If you enclose a tag or substitute, as provided in Rule 2, you will also be entered in the Sweepstakes. You will be notified if you have a winning number or win the Sweepstakes.)

*PFIZER BRAND OF OXYTETRACYCLINE (ANTIBIOTIC) REG. U.S. PAT. & TM. OFF.

TWICE:

2 ENTER THE \$10,000 SWEEPSTAKES, TOO —with the same coupon and an egg feed tag (see rule 2).

And here's why Terramycin in Egg Feeds makes you money, too.

Terramycin has been well proved to add substantial value to a laying feed.

The benefits range from improved production and savings in feed to better health and produc-

fact that the extra re-
more than pay its cost.
nycin gives will vary
u can look for *these*

production

d feed efficiency at

And for breeder flocks you can expect *these benefits*:

- Better fertility
- Better hatchability
- Better chick livability
- Improved eggshell quality

If you haven't been using Terramycin, you should start getting its benefits today. See your feed supplier for laying feeds with Terramycin.

*When the problem is associated with Terramycin-susceptible organisms.



Chas. Pfizer & Co., Inc.
New York 17, N. Y.

Science for the world's well-being®

TERRAMYCIN®

Basic Drug for Egg Feeds

WIN

1

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Don't wait—match your number on your feed supplier's Master Board today... you may come up a really big winner.

\$100,000 TERRAMYCIN®

Check your number at your feed supplier's and
SEND IN THIS COUPON

- 1 If your number matches, mail to:
EGG MONEY WINNERS
P. O. BOX 71, EVANSTON, ILLINOIS
(to claim your matched number prize and to automatically enter the Sweepstakes, too).
- 2 If your number doesn't match, mail to:
EGG MONEY SWEEPSTAKES
P. O. BOX 5499, CHICAGO 77, ILLINOIS
(to enter the \$10,000 Sweepstakes only).

Name
(PLEASE PRINT OR TYPE)

Address

City State

[Be sure your feed supplier signs —
he wins a duplicate prize, if you win]

This certifies my egg feeds contain Terramycin:

Name of supplier

Company

Address

City State

Be sure (to be eligible for the \$10,000 Sweepstakes Prize) to include with your coupon a tag from any egg feed containing Terramycin or a separate piece of paper on which you have printed, in block letters, the brand name of Pfizer antibiotic.

TWICE:

2 ENTER THE \$10,000 SWEEPSTAKES, TOO

—with the same coupon and an egg feed tag (see rule 2).

And here's why Terramycin in Egg Feeds makes you money, too.

Terramycin has been well proved to add substantial value to a laying feed.

The benefits range from improved production and savings in feed to better health and production during stress periods.

And it is a well-established fact that the extra returns from Terramycin can more than pay its cost.

The improvement Terramycin gives will vary from flock to flock but you can look for *these responses*.*

- Improved egg production
- Extended period of high production
- Improved feed efficiency
- Improved production and feed efficiency at times of stress

And for breeder flocks you can expect *these benefits*:

- Better fertility
- Better hatchability
- Better chick livability
- Improved eggshell quality

If you haven't been using Terramycin, you should start getting its benefits today. See your feed supplier for laying feeds with Terramycin.

*When the problem is associated with Terramycin-susceptible organisms.



Chas. Pfizer & Co., Inc.
New York 17, N. Y.

Science for the world's well-being®

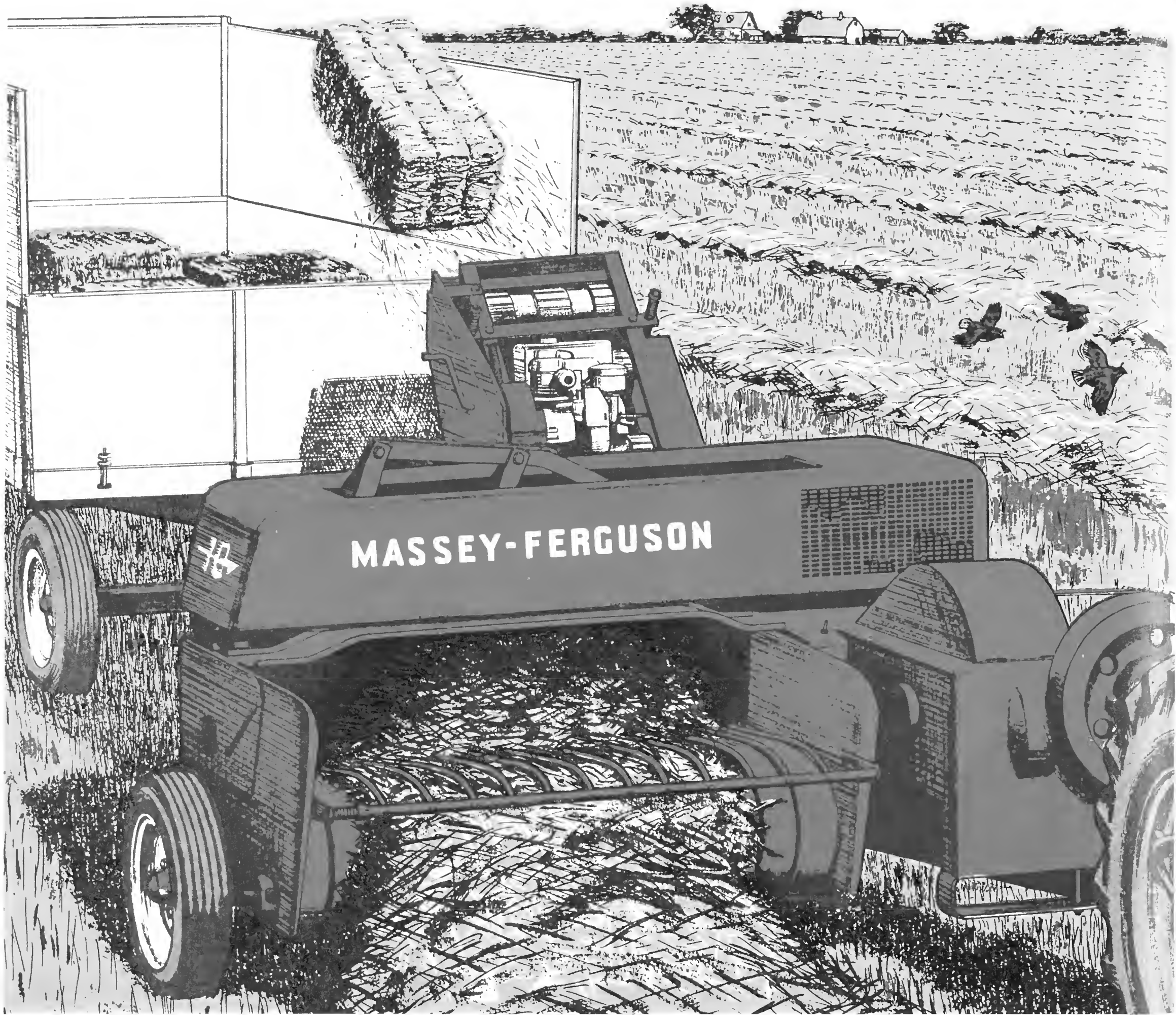
TERRAMYCIN®

BRAND OF OXYTETRACYCLINE

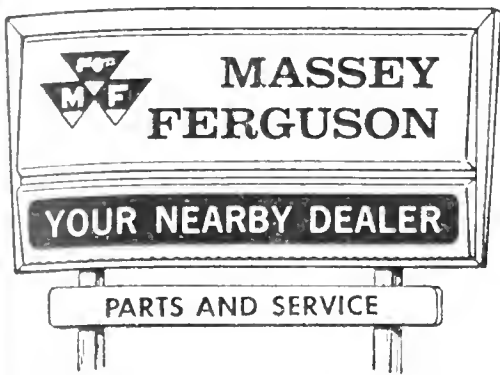
The Basic Drug for Egg Feeds



MASSEY FERGUSON



FIRST OUT... FIRST BACK! Balers that need no daily greasing (only M-F makes 'em) are first in the field...first home with the crop. They save you time and trouble. Add the new MF 21 Bale Thrower and they save you manpower and backache too. Now one man and his MF 10 can pick up, bale and toss 10 to 12 tons an hour, at 60 pounds a throw! Same new Thrower fits the smaller MF 3. Need a new baler? Be *first* with M-F!



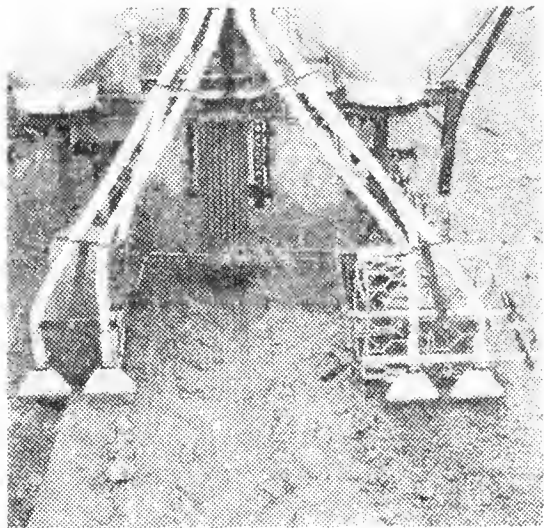
NEW YORK

AFTON, Bennett H. Decker
ALBANY, Abele Tractor & Equip. Co., Inc.
AMSTERDAM, H & M Equip. Co., Inc.
ANTWERP, Northrop Equip. Co., Inc.
ATLANTA, Steuben Farm Supply, Inc.
AUBURN, Clark & Whaley
BALLSTON SPA, A. L. Pettit & Son Equip. Inc.
BATH, James H. Burns
BELLEVILLE, Bob Henry, Inc.
BERGEN, Kaiser-Wilcox Corp.
BLOSSVALE, Jay's Sales & Service
BOSTON, Emerling Chevrolet Co., Inc.
CANANDAIGUA, Donald J. Howard
CANTON, Dewey Cornell Farm Imps., Inc.
CENTRAL BRIDGE, J & P Imp. Co.
CENTRAL SQUARE, Central Square Imp.
CHERRY CREEK, Cherry Creek Motor Sales
CHESTER, Chester B & J Garage
CLINTON, Marsh's Farm Equip.
DAVENPORT, MacCracken Farm Supply
DeRUUTER, H. W. Cook Farm Service, Inc.
EAST AURORA, Circle Mtrs. of E. Aurora, N.Y.
EAST SYRACUSE, Northeast Tractor Sales
ELBA, County Line Garage
ELLENBURG DEPOT, S. L. Drown & Sons, Inc.
FILLMORE, Farm Machine Service, Inc.
FORT EDWARD, Emerson C. Grant
FRANKLIN, Ray Tilley & Son
FRANKLINVILLE, C. A. Phillips & Sons Inc.
GOUVERNEUR, Jones Farm Supplies
GRAND GORGE, Sauveur Garage
HERKIMER, Palmer J. Watkins
HICKSVILLE, L. I., Wm. Kroemer & Sons, Inc.
HORNELL, Thacher Brothers
ITHACA, Ithaca Farm Equip. Inc.
JEFFERSONVILLE, Jeffersonville Garage
KIRKVILLE, Mabie Bros. Inc.
KINDERHOOK, Kinderhook Farm Equip. Corp.
KING FERRY, Roy A. Tuttle
LaFARGEVILLE, Glenn Johndrow
MILLERTON, Scoiland Farm Equip.
MARCELLUS, Nightingale Mills, Inc.
MARTINSBURG, Ingersoll's Farm Supply Co.
MIDDLEPORT, R. Max Hyde
MOIRA, Henry Eseltine M-F Sales
MONSEY, Monsey Tractor Co. Inc.
NAPLES, C. W. Guile
NELLISTON, Hawkins Tractor & Imp. Sales
NEW HAMPTON, Sosler Garage & Farm Imp.
NORTH JAVA, Java Farm Supply
NEW PALTZ, New Paltz Tractor & Equip.
NEWPORT, Walier Sales & Service
NORWICH, R. D. Smith and Sons
ONEIDA, Marshall & Houseman Inc.
OWEGO, J. D. Hunt & Son
PANAMA, Panama Farm Supply
PIFFARD, Parnell Sales & Service
POUGHKEEPSIE, Inland Trac. & Equip. Co. Inc.
RICHFIELD SPRINGS, Hillside Equip. Co.
RIVERHEAD, William Kroemer & Sons, Inc.
SHERIDAN, Main Motors
STONE RIDGE, George Von Bargaen
THORNWOOD, Stark Equip. Co. Inc.
TROUSBURG, Elbert Potter
UTICA, Credle Equip. Inc.
VALATIE, Heins Equip. Co. Inc.
WADHAMS, Lewis Farm Supply Inc.
WALLKILL, Valley Farm Supplies Corp.
WATERLOO, Finger Lakes Equip. Co.
WESTFIELD, Rammelt & Son
WEBSTER, Buckner-Miller Inc.
WILSON, Thomas Brawn
WILLIAMSON, Ralph A. Verbridge
WINDSOR, Farm Machine Service Inc.
WOLCOTT, Galvin Bros. Farm Service Inc.
WOODSIDE, L.I., Mid-Atlantic Equip. Co. Inc.

NEW JERSEY

ALLAMUCHY, Clark Sales & Service
BRIDGEBORO, Fortnum Motor Co.
DEERFIELD STREET, Ackley's Garage
FLEMINGTON, Flemington Fm. Equip. Co., Inc.
FREEHOLD, Dreyer Equip. Co.
HAMMONTON, Rodio Tractor Sales
HIGHTSTOWN, Hights Farm Equip. Co.
LAKEWOOD, Bartolf Equip. Co.
MAHWAH, Farmers Auto & Equip. Exchange
MT. HOLLY, Hy-Way Tractor & Equip.
NESHANIC STATION, J. S. Covert & Sons
NORMA, Norma Motors
PINE BROOK, Shulman Equip. Co.
STEWARTSVILLE, Esposito Farm Machy.
WICKATUNK, Conover Bros.
WOODSTOWN, R. J. Franzen

NEW and different



The picture above shows the new Ro-Wheel developed by the Gandy Company, Owatonna, Minnesota. The regular press wheel at left leaves an uneven surface, with a ridge in the center, valleys on either side, flanked by clods of loose dirt. At right the Ro-Wheel crushes lumps, levels and firms the 14-inch row. It is believed that this will give better utilization of weed and insect control chemicals.

Bee News — Three new pieces of equipment of interest to beekeepers have been developed by C. L. Farrar, a USDA bee researcher working at the University of Wisconsin.

First is a "watering tank." This consists of a plastic sponge fitted tightly into a shallow tank of water; the bees can get all the water they need from the sponge pores. Mr. Farrar's model was 30 square feet, and he says it can be kept free of disease germs by periodical sterilization in hot water.

Another device is a small tank of water set in a wheelbarrow frame with a platform above to support a hive body while the bur comb is scraped off. As the bur comb falls into the water there is no attraction for bees.

This wax from the bur comb is a valuable by-product, and Mr. Farrar has also designed a portable infrared gas heater mounted two feet above the wax vat to melt the bur comb scrapings before they are made into beeswax.

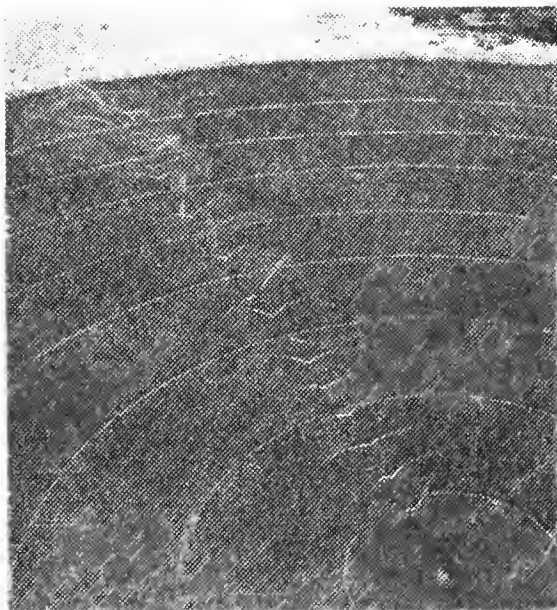


Won't Burst — This bag won't burst on contact with the ground unless there's a nail or barbed wire in the way. And even then a piece of pressure-sensitive tape can close the puncture. Completely moisture-proof as well as durable, plastic bags for fertilizer have a promising future. No more clogged spreaders and planters from wet fertilizer. The bags are handy, too, for storing tools, grains, etc., and for covering outside motors or machinery.

Termite Control — Noting the attraction for termites in a fungus organism in decaying wood, scientists at the University of Wisconsin added dieldrin insecticides to the wood, thus creating a "poison bait" that has proved very effective.

Also in process of testing at Wisconsin is the addition of up to 16% dieldrin in cement for foundation walls, so that the termites would be exposed to it before reaching the wood of the house. So far it has been found that the insecticide maintains its killing power for 18 months—the extent of the testing. Tests will be continued for five years, and safety factors studied.

Approved — Applications of Simazine 80W or Simazine 4G herbicides are being used by nurserymen for weed control in trees and shrubs. The herbicide can be broadcast, put in a band, or sprayed, and controls both annual broadleaf weeds and grasses.



Press the Button — This is an aerial view of a self-propelled irrigation system operating in a California field; similar systems are at work in 27 states. Patented by the Valley Manufacturing Company, Valley, Nebraska, it operates around a central pivot point, with the sprinkler pipe supported by towers on wheels every 96 feet. The entire system is moved around the field by its own power.

"Puffed" Feed — Dairy heifers at the University of Delaware, Newark, have been fed "puffed" corn and soybeans. The apparent better digestibility of the corn and soybeans is obtained by placing them in a large steam pressure cooker, creating great heat and pressure. The material is then forced out through a small aperture and the sudden reduction in air pressure causes the material to expand, rupturing the cells of the grain. The method is similar to that used in making puffed breakfast foods.

Use A Raft — A raft or platform made of wire mesh floated with a couple of oil drums does an excellent job of fertilizing a large pond. The fertilizer bags can be laid on the platform, the paper cut away from the upper side, and the wave action will dissolve the fertilizer and distribute it in the surface water of the pond. This is where the fertilizer does its best job in encouraging the growth of fish food, which, in turn, darkens the bottom of the pond and gives weeds less of a chance to grow.



Every Farmer who wants to SAVE MORE MONEY SPRAYING should read this FREE BOOKLET!

Shows How To

- ☐ Cut lost time factors in spraying
- ☐ Reduce labor and operating costs
- ☐ Select most efficient equipment

... shows how **CENTURY** Sprayers reduce labor and operating costs to spray 10 more acres a day

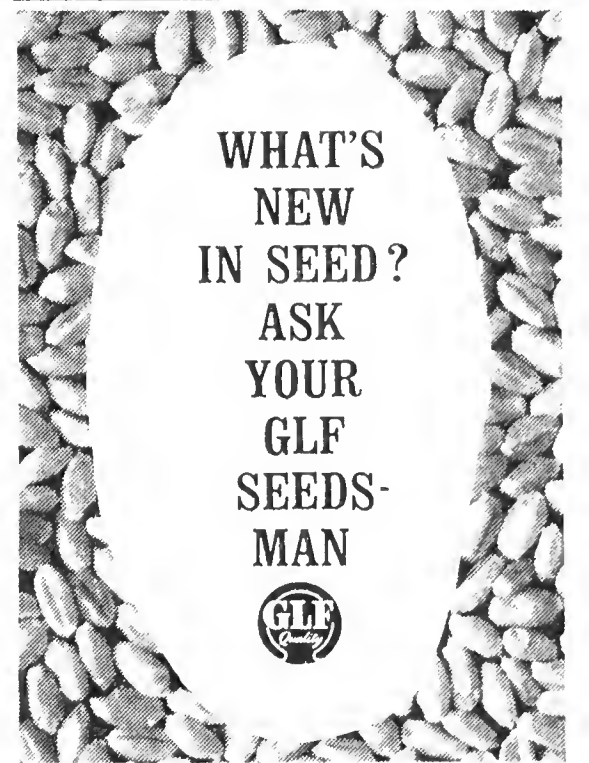
- 1 TRACTOR SEAT CONTROL**
 - Boom folds low and locks
 - Clears low branches or wires—unfolds for spraying. Start or stop flow while tractor is moving
- 2 NO TOOLS NEEDED**
 - To adjust boom height
 - Inspect or clean strainer
 - Attach or remove nozzles or holder
 - Remove boom for storage
 - Blank off nozzles

YOU'RE ACRES AHEAD...BEHIND A CENTURY

- Boom Type 6 to 12 row
- Jet and Hand Gun
- Planter Attachment Spray or Granule
- Pumps and Sprayer Accessories

FREE! See your Dealer for "How To Spray More Acres A Day" booklet or write:

CENTURY
ENGINEERING CORPORATION
Cedar Rapids 115, Iowa



WHAT'S NEW IN SEED? ASK YOUR GLF SEEDS-MAN



Keep Teat Open...

Keep it Milking

With the Dairyman's Favorite Dilator.

At drug & farm stores or write H. W. Naylor Co., Morris 4, N.Y.



Dr. Naylor's
MEDICATED
Teat Dilators

Large Pkg. \$1.00
Trial Pkg. 50¢

Advice For The Road



MOTOR VEHICLE accidents cost the nation heavily in 1962 and 41,000 people were killed, nearly three-quarters of them in rural areas.

Excessive speed is still the chief circumstance in auto fatalities, but, in a recent study by the National Safety Council, it was found that five out of six drivers involved in

fatal accidents were **not** exceeding the legal speed limit.

To most people speeding means going faster than the law allows; but to the experts it means "going too fast for existing conditions." Speed limits are set for normal driving conditions: good weather, dry roads, daylight visibility. There are many occasions when conditions are

very different, and when the legal limit constitutes a dangerous speed.

A big cause of "injury accidents," those which do not kill—but often maim—is failure to yield right of way. Even if you are in the right, give the "roadhog" room—he's better out of your way, anyway.

Following too closely behind another car is the second biggest cause of accidents in urban areas, third in rural areas. And a third major mistake, particularly on rural roads, is driving left of center.

There is no likelihood of a reduction in the number of vehicles on our highways; it will increase for years to come. So it behooves all of us, in order to enjoy our motoring, to keep alert to safety factors.

A happy note comes with the installation of seat belts. Studies have shown that these do save lives and reduce injuries, and the National Safety Council believes that, if seat belts were installed and used in every motor vehicle, they would save 5,000 lives in a year and reduce serious injuries by one-third. Less dramatic—but helpful—is the fact that seat belts cut fatigue on long trips and minimize the strain of stopping and turning.

Everyone feels impatient with the slowpoke on the road—and rightly so. But don't let them spoil your trip. There will always be some of them around.

It's a good idea to copy the professional driver who keeps his eyes moving ahead, behind, to the sides—preparing for distant problems before they arrive. He watches the front wheels of an oncoming car, and thus can often anticipate a surprise turn before the other person swerves into his lane.

Don't Tailgate

On our modern highways it's wise to stretch the distance between cars to even more than the recommended one car length for every 10 miles of speed; and on slippery pavements stretch it even more. Of course, there's the person who comes from behind to fill in the space—but he usually swoops out again and in between some other wiser drivers.

A man whose reflexes are only a little slowed by alcohol can be more of a threat to other drivers than an obvious drunk. In a recent year, 21 out of every 100 fatal accidents involved a driver who had been drinking—but only 7 out of those 21 were intoxicated!

Blowouts cause more fatal accidents than is commonly realized. Check your tires often for cuts and bruises as well as for pressure.

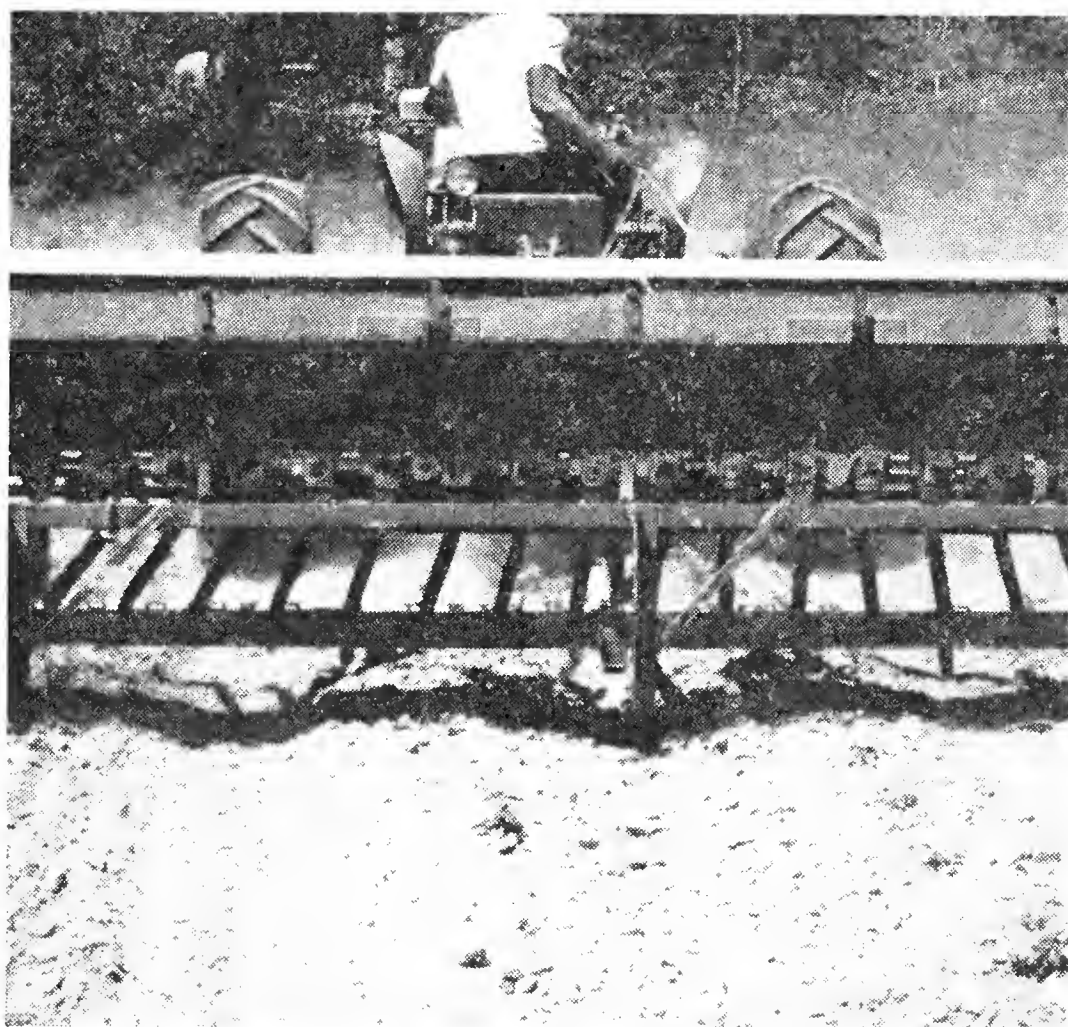
Keep head and tail lights clean. Drive as carefully on short trips as on long ones—and fasten your seat belt even if you're just going around the corner. Two-thirds of fatal accidents occur within 25 miles of the victim's home.—*Isa Liddell*

Eptam[®]

SELECTIVE HERBICIDE

applied before
planting or
at drag-off

controls weeds,
cuts costs and
lets you harvest
cleaner potatoes



Now there's a *dependable* way to control nutgrass, annual grasses (including corn grass) and many broad-leaf weeds in potatoes . . . *before* they become an expensive problem: Mix EPTAM selective herbicide into your soil before planting or at drag-off.

EPTAM gives you three big advantages: *One*, you can make shallower cultivations—thus reducing the root pruning damage which cuts yields; *two*, you cut weed competition for water, nutrients and sunlight—giving you higher yields as well as reduced tuber damage from nutgrass rhizomes; and *three*, you harvest a cleaner

crop—with much less labor and a great decrease in cutting and bruising of tubers at harvest.

EPTAM comes in both liquid and granular forms. After preparing your soil for planting, or at drag-off, apply EPTAM directly to the soil. Mix it into the soil with recommended equipment immediately after application.

This year, save money, time and work on cultivation. Use EPTAM for a cleaner, high-yield crop. See your dealer or write for complete information. Stauffer Chemical Company, Agricultural Chemicals Division, 380 Madison Ave., New York 17, N.Y. (Stauffer's Reg. T.M. for an herbicide)



GROW WITH STAUFFER CHEMICALS

APPLE SCALD

CLIMATE conditions during the last six weeks of the growing season determine whether apples will be resistant or susceptible to scald, reports Professor R. M. Smock, pomologist at the New York State College of Agriculture at Ithaca, N. Y. In 1960 alone scald was responsible for a three million dollar loss to New York State apple growers.

Dr. Smock has discovered that hot nights during the last six weeks of the growing season increases scald (which shows up later in storage), while cool nights have the reverse effect. Knowing this, growers can take steps to combat the problem.

PEACH STUDY

Scientists at the Ohio Agricultural Experiment Station at Wooster have been studying peach trees grown in sod versus those under cultivations, plus cover crops. The results of the study sum up as follows: if you want to grow peach trees in sod, add twice as much nitrogen as normal and make sure they have plenty of moisture. But don't overdo the nitrogen—it does no good to put on four times the normal amount—that results in delayed maturity and reduced red overcolor.

Forage Harvest Countdown

By Walter Griffeth*

WHEN WE think about when to push the button on harvest of forage grasses and legumes, we must balance our desire to produce the highest quality hay, silage or pasture against the requirements of each kind of grass and legume for continued growth. The parts of a plant that are of highest value for



WALTER GRIFFETH

animal feeding are also of high value to the plant. Animals prefer and produce best on forage that is primarily young leafy plant tissues. However, the plant must have the use of these young leafy tissues for

a reasonable time, if it is to produce enough growth for survival and good future yields. Very early or frequent cutting will produce high quality forage, but may seriously damage the forage plants.

Let 'Em Grow

For continued growth and survival, forage mixtures containing alfalfa or birdsfoot trefoil usually should be allowed at least six weeks of growth between harvests, and about six weeks between the last cutting and the time when growth stops in the fall. Cutting more frequently, or at the wrong time in the fall, causes a reduction in stored plant foods. When forage plants are low in carbohydrates and other stored foods at the time of harvest, the regrowth rate is usually slow and this in turn results in loss of vigor and reduced yields.

We ran some tests in Orange County, New York, on the effect that timing of harvest in 1959 and 1960 had on hay yields in 1960. Four cuts at five-week intervals reduced the stands of alfalfa so that yields were 1½ to 2 tons below that on test areas (with comparable fertilizer treatments) where a three cutting system had approximately seven weeks between cuttings.

Research evidence throughout the northeastern and the north central states shows that cutting or grazing of legumes should not be done during the period beginning about four to six weeks before the first killing frost in the area and continuing to the time of that frost. The period before killing frost in the fall is very critical for forage plants, particularly the legumes. During this period, plants need their leaves to produce and store a high level of food before winter.

DuPuits alfalfa fields, also tested in Orange County, proved this point; the 1960 yields were reduced 1.4 to 1.9 tons per acre by an extra fall cutting taken October 10, 1959. Similar experiments with Vernal alfalfa at Madison, Wisconsin, showed that cuttings made in early October reduced yields below that of fields not subjected to the late fall harvest. Tests for available carbohydrates in roots and crowns showed both were sharply reduced by the late harvest.

What is the principle involved here? The growth during the first

2 to 1 weeks in the spring - and growth after each cutting - temporarily lowers the reserve supply of sugars, starches and other food materials stored in the perennial parts of the plant. If the plant is cut or pastured too soon, it will not have time for the leaves to manufacture and store a new reserve food supply. The plant is then on "short rations" and regrowth is likely to be slow because there is not enough stored food available from which to rapidly grow new leaves.

Table 1. Effect of State of Growth at First Cutting in 1960 and 1961 on the 1961 Yield of Bromegrass and Orchardgrass, Ithaca, N. Y.

First Cutting Management	Saratoga Bromegrass	Potomac Orchardgrass
	Tons/A, 1961	Tons/A, 1961
Early Bloom	5.7	6.1
Pre-joint (very early)	2.9	5.5

Data from J. J. Wright, J. E. Beggs and W. G. Monson, Dept. of Agronomy, Cornell University.

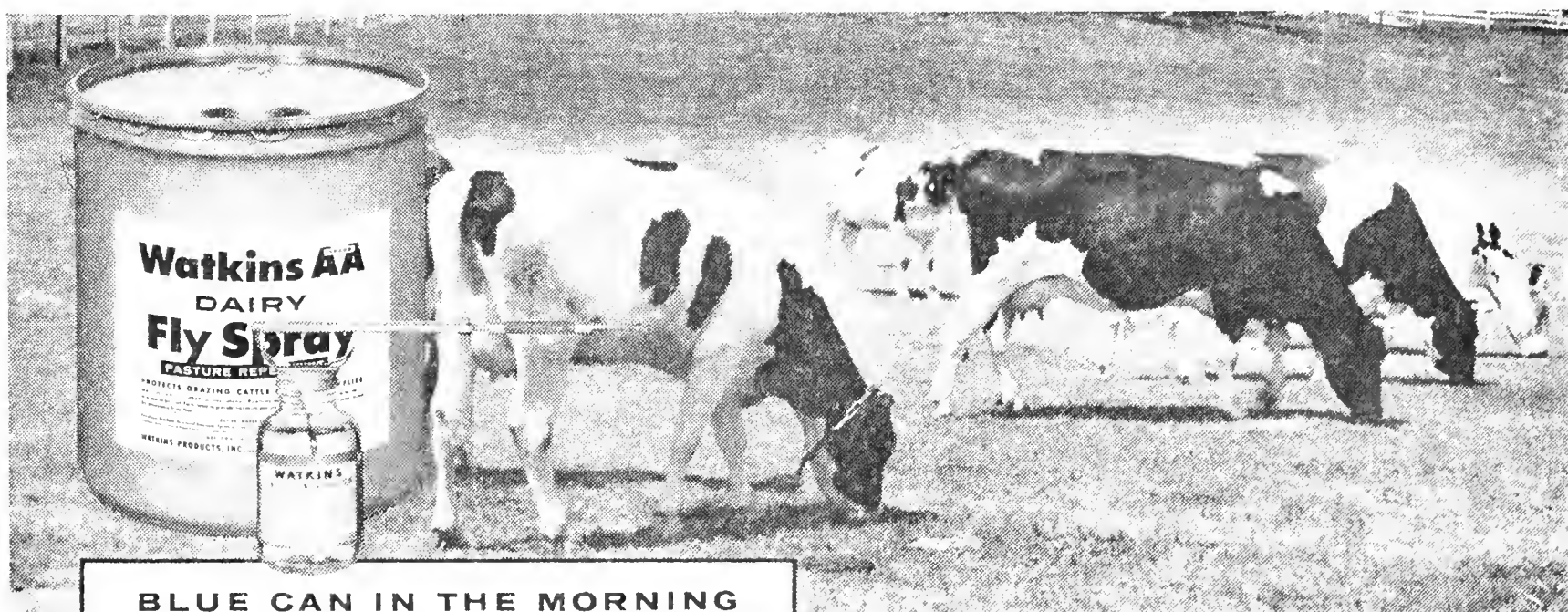
Since a rather high level of food reserves is necessary for the plant to withstand cold temperatures, these weakened plants often winter-kill. This basic principle applies to the management of all the perennial forage grasses and legumes.

Since grasses are so common and some grasses survive long after legumes disappear, it is often thought

that the management of grasses must be much simpler than the management of legumes. This is no doubt true under conditions where the grasses are not being pushed for high yield and quality. But when the grasses are fertilized to produce high yields, the management system does make a difference.

(Continued on Page 50)

for complete fly control



BLUE CAN IN THE MORNING
for contented grazing



RED CAN IN THE EVENING
for sanitary milking

here's why you need

A COMPLETE PROGRAM (NOT A PRODUCT)

We'd like to be able to tell you we have a miracle insecticide that will eliminate flies from your farm. But the truth is, no single insecticide can give complete fly control and still be safe.

Watkins recommended dairy fly control program calls for a combination of insecticides, plus "management." It's a program that really pays by preventing production losses due to flies; losses that may run as high as one gallon of milk in five!

1. Keep fly populations down. Get rid of breeding spots and use Watkins Triple Duty Concentrate for long-lasting residual fly-killing power.
2. Protect cows on pasture with Watkins Dairy Fly Spray (blue can) and Watkins Face Fly Killer and Fly Bait. Let your cows spend their time grazing instead of fighting flies.
3. Top off your program with Watkins Grade AA Pyrethrum Fly Spray (red can) to "clean out the barn" for peaceful milking.

Your Watkins Dealer can supply the recommended insecticides and programs for most farm problems. Let him help.



Watkins Triple Duty Concentrate
A powerful, long-lasting residual insecticide for use in and around buildings and on animals. Can be used in back-rubbers. Safe for calves. Dilute with water or oil. One application may be effective for weeks, depending on weather.

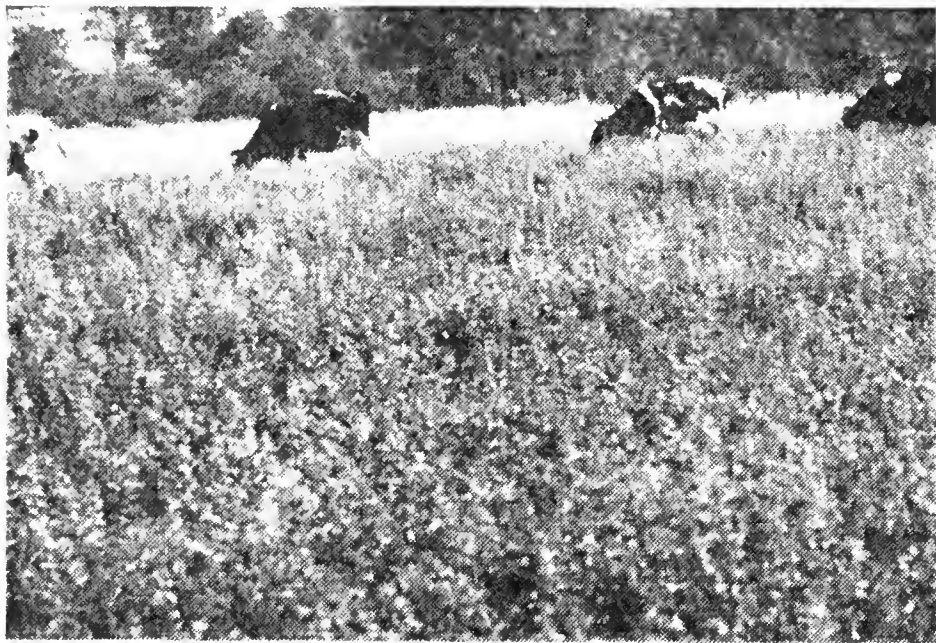
Watkins Face Fly Killer and Fly Bait

A syrupy DDVP bait face-fly Killer. As Face Fly Killer, brush on cow's face. As a liquid Fly Bait, brush it on spots where flies rest. Fast, sure kill.



* Department of Agronomy, Cornell University, Ithaca, N. Y.

Premium Alfalfa!



... *because* Butyrac
killed the weeds



Once germinated, annual broad-leaf weeds take over fast and can prevent legumes from getting properly established. Result—losses all down the line in time, labor and stands.

BUTYRAC 118 prevents these problems. It kills weeds in your alfalfa, birdsfoot trefoil, alsike, ladino, or red clover, other seed clovers and gives the legumes a head start. Selective BUTYRAC 118 gets rid of these broadleaf weed infestations without damage to your valuable legumes.

Let your Amchem Dealer help you plan a practical weed control program for your legume crops.



Amchem is a registered trademark of
AMCHEM PRODUCTS, INC. (Formerly American Chemical Paint Co.)
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CUT HAY DRYING TIME UP TO ½ :



"GRIMMS" TEDD-AERATOR HAY TEDDER

Two models, Land Driven or Power Take Off. Rubber tires. Turns hay in swath or windrows. Non-tangling pick up forks. Makes hay faster. Write for details.

G. H. GRIMM CO., Rutland, Vt.

No Nagging Backache Means a Good Night's Sleep

Nagging backache, headache, or muscular aches and pains may come on with over-exertion, emotional upsets or day to day stress and strain. And folks who eat and drink unwisely sometimes suffer mild bladder irritation . . . with that restless, uncomfortable feeling.

If you are miserable and worn out because of these discomforts, Doan's Pills often help by their pain relieving action, by their soothing effect to ease bladder irritation, and by their mild diuretic action through the kidneys—tending to increase the output of the 15 miles of kidney tubes. So if nagging backache makes you feel dragged-out, miserable . . . with restless, sleepless nights . . . don't wait . . . try Doan's Pills . . . get the same happy relief millions have enjoyed for over 60 years. For convenience, ask for the large size. Get Doan's Pills today!

Science Shrinks Piles New Way Without Surgery Stops Itch—Relieves Pain

New York, N. Y. (Special) — For the first time science has found a new healing substance with the astonishing ability to shrink hemorrhoids and to relieve pain—without surgery.

In case after case, while gently relieving pain, actual reduction (shrinkage) took place.

Most amazing of all—results were so thorough that sufferers made aston-

ishing statements like "Piles have ceased to be a problem!"

The secret is a new healing substance (Bio-Dyne®)—discovery of a world-famous research institute.

This substance is now available in suppository or ointment form under the name Preparation H®. At all drug counters.



Dave Kimball (left) and brother Brian installed their pipe tieups.

NEW BARNS IN NEW ENGLAND

(Continued from Page 14)

housed there earlier; now it's the larger Holsteins, both grades and registered.

Barn type depends on a dairyman's likes and dislikes as well as on his program. The Kimballs prefer the stall-type barn, feeling they can give the cows better individual attention and keep them cleaner. Each cow is fed individually, and the boys decided to stick with bucket milking.

One big labor-saving feature they like particularly is the big 10 foot garage-type door at each end of the barn for drive-through feeding, a big timesaver in their work program. Although they will still practice some zero grazing, they plan to let the cows out during warm weather in a night and day pasture.

Except for the stalls, plans and materials were supplied in a Hood package. The Kimballs did all the work with the help of one carpenter, putting the barn up in eleven weeks except for the finishing touches.

Light and Well Ventilated

The barn is equipped with 62 small thermopane windows on all four sides to provide maximum interior sunlight. Window installations are recessed to provide maximum protection against breakage.

Aluminum sheathing is used on the ceiling, and the Kimballs are well pleased with this type material. As David Kimball puts it: "You really appreciate the reflecting ability of this type ceiling at night." The barn is fully insulated; ceiling insulation is the same as in the Dostie

barn, and there are three inches of insulation on all four walls. The brothers take pride in their workmanship, and the matched pine paneling interior demonstrates this fact.

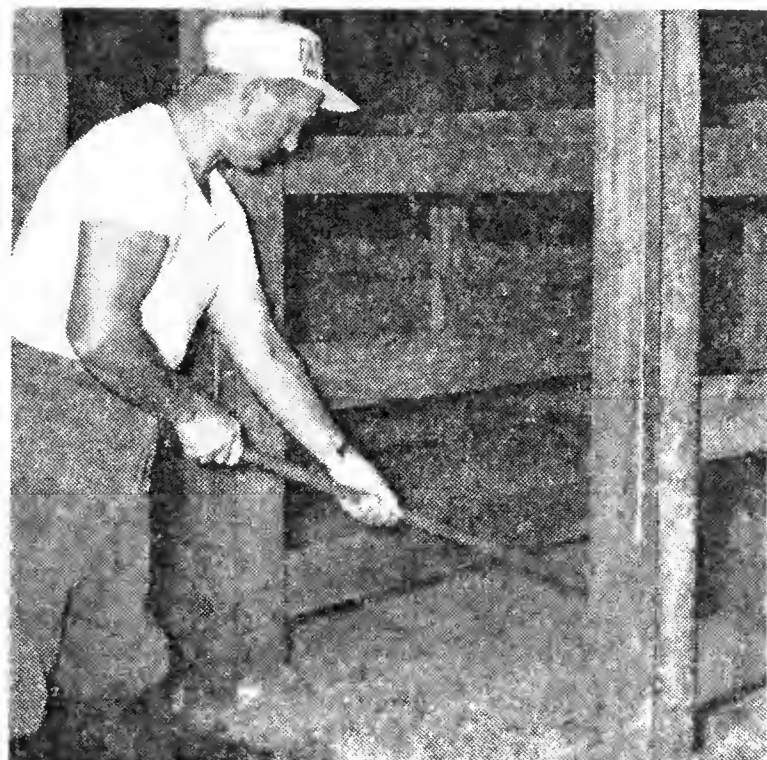
This barn is also equipped with perimeter ventilation for a constant flow of non-drafty air that keeps the interior air fresh. A single fan in the wall, thermostatically-controlled, draws air in through the attic 4 x 4 foot louvers at each end, down through the perimeter wall slots into the barn before exhausting the stale air.

The Kimballs (who had not shifted their 10 milkers over to the new barn when this was written) planned to open up every other manually-controlled perimeter damper during the winter to regulate the air flow. In summer everything will be open. Once these details are worked out to individual satisfaction, no further regulating is required except for seasonal changes.

Their low neat-looking pipe tieups, made by a Maine firm, were installed by the brothers. To save steps, a step-through was left about halfway down the barn between the tieups, and the vacuum line extended overhead here to keep it out from underfoot.

Although a new milkroom was attached, the 300 gallon bulk tank used in the old milkroom was scheduled to be moved over. The old barn will still be used for livestock—including young stock. With the barns located

(Continued on Opposite Page)



Harold Bodwell smooths sawdust daily in his free choice stalls.

(Continued from Opposite Page)

less than 100 feet apart, trucking hay is no problem. When the chuck-wagon is not being used during the winter, it is kept filled with dry bedding. Bedding is dumped into the barn whenever necessary, and moved around by carts.

The Kimball brothers, like the Dosties, are proud of their new drive-through barn. Both barns are facing the future with an efficient dairy setup tailored to suit their individual programs.

HAROLD BODWELL

So many dairymen have visited Harold Bodwell's farm at Kensington, Rockingham County, New Hampshire, to see his free choice stalls that he has threatened to put up a refreshment stand. Practically all of the several hundred visiting dairymen have asked the same question: "Will the cows really go in those things?"

"They work slick," says Harold enthusiastically. "The cows like them, they don't lie in the alleyways, are cleaner, and I cut bedding expense 75 percent."

Bodwell has always been a dairyman's dairyman. He was one of the first winners of the New England Green Pastures Program, built one of the first homemade and highly practical milking parlors which, incidentally, is still in use. He was one of the first to dig a farm pond for irrigation and recreational purposes, built one of the first homemade bulk feed bins seen on a dairy farm, and when he heard about the individual stalls being used in another section of the country he drew up his own plans and gave them a try.

He felt that his old barn was inefficient according to present day standards. He couldn't use a tractor inside it—and the cost for renovation was excessive. With the individual stall idea firmly in mind, he cleaned out the old manure pit under the barn, bought a keg of nails, and constructed a total of 54 stalls of one inch hardwood in three rows to coincide with the three cellar openings. Actual material cost was estimated at \$5 per stall; including all costs, labor, etc., he estimates the overall cost at about \$35 per stall. The 54 stalls are in a 72 foot area.

The tractor-width alleys between the stalls are paved with four inches of concrete—and the barnyard also is paved. An 8 inch plank separates stall litter from the alley. A new gravel foundation was used instead of concrete under all stalls, topped with 8 inches of sawdust. (Plans are now available from Hal Colby, Agricultural Engineering Department, University of New Hampshire, Durham, N. H.)

For daylight interior illumination, to prevent accidental glass breakage, and to cut future maintenance (as well as providing protection from the elements) Bodwell sheathed the new window openings (the barn faces south) with a roll of plastic-coated glass.

The alleys and the entire paved barnyard are cleaned once daily with a tractor, using a back scraper.

One pass is enough down each alley. Not only does Bodwell believe in cleanliness, but it helps avoid tracking up the litter in the stalls. All stalls are checked once daily just before the scrape-down, any chance droppings are cleared with an ordinary garden rake, and the litter smoothed.

The cows never back in, and stray droppings are either outside in the alley or on the outside edge. Bodwell watches the stalls closely, adding fresh sawdust whenever necessary, usually about once a month. He dumps a load outside the entrance, pushes it into the alleys with a tractor scoop, and shovels it into the stalls. The average is about one three-cord load of sawdust monthly; in the conventional barn he required four three-ton loads monthly.

Bodwell gets down-pressure on the scraper blade during winter ice and snow with weights totaling 500 pounds. The manure is scraped over into an old cement cellar at one side of the paved barnyard.

The milking herd gets its silage and hay outside in the feed bunk; the water fountain is also outside in the paved barnyard; the cows get their grain in the milking parlor, which is convenient to the barnyard. With no doors in this basement setup, the cows are free to come and go throughout the day and night.

Harold Bodwell was so pleased with the individual stalls that he built a new clearspan barn nearby with stalls for sixty cows; he is now milking about 100. This new barn was designed and constructed with Rodney Martin's aid.

(Note: As stalls are constantly undergoing improvements, a dairyman contemplating building individual stalls should check with his local county agent, Extension personnel, or a qualified agricultural engineer for the latest recommendations.)

Look Around

"If you are seriously thinking about building a new dairy barn," says Rodney Martin, "don't pass judgment on your neighbor's setup. Visit other farms and see what is being done elsewhere."

He also recommends that the family discuss the proposed barn and its layout. After arriving at a conclusion on paper, get plans drawn. "That," concludes Martin, "is money well spent. The plans will pay for themselves many times over."

Still the Best



The Only Chemical You Need For All Season Fruit Insect Control

Guthion is still the standard spray for fruit...for three big reasons:

■ **The Standard For Effectiveness.** Guthion gives you virtually complete control of all major fruit pests. Many years of commercial success with Guthion have proved its broad range control. Tests last year still showed this remarkable effectiveness.

■ **The Standard For Finer Finish.** Growers consistently report that they get better color, better finish and higher yields with Guthion. And

Guthion leaves lower visible residues. That means top dollar whether you sell for the fresh market or for processing.

■ **The Standard For Low Cost-Per-Season.** Guthion keeps insects under control between cover sprays—prevents build-up and actually eliminates cover sprays. Guthion is not intended for single-spraying clean-up of severe infestations, but when used on a continuous program, right up to harvest, Guthion prevents build-up — gives low cost-per-season control.

Start your spray program right...with Guthion. Right now is the time to order from your dealer.

4787B

In Connecticut, dairymen recently went on a tour to visit free-stall dairy barns on the farms of Claude Castonguay and Hurlburt and Larson at Pomfret; George Barrett, Woodstock; and Kenneth Sherman, North Woodstock.



**CHEMAGRO
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PROFESSOR C. D. Kearn, who grew up in western sugar beet country, and now heads farm cost



PROF. C. D. KEARN

account records at Cornell University, in Ithaca, New York, has authored a publication entitled "Sugar Beets In New York State?" Its official handle is A.E. Ext. 190, and it's interesting to note the information contained therein. Here are some of his comments:

"The history of the beet sugar industry is not one of overwhelming success. It is as large as it is be-

Sugar Beet Stew

Farmers in Central New York around Auburn are talking these days about the possibility of getting into the sugar beet business.

cause we elect to permit it to be by means of quotas and tariffs. These place United States sugar prices 2 to 2½ cents above world prices. Even with this protection there have been built in the United States only 4 new factories since World War II, while 25 have been abandoned. There are currently 63 in operation.

"In Michigan 22 sugar factories have been started, but only 5 remain. Four of these are operated

by the Michigan Sugar Company. These, of course, are located in the same areas in which the sugar beets are grown.

"A modern plant will slice 3,000 to 4,000 tons of beets per day. For a plant of 3,000 ton capacity about 30,000 acres of beets are required.

"The \$16,000,000 that might be invested in a new factory, the \$1,500,000 which would be required of farmers for harvesting equipment, the additional investment for new

planters and planter adapters, and perhaps \$4,000,000 that might be spent in growing beets, are outlays that should not be made without reasonable assurance that they can be recovered. Before any sizable amount is spent on a project of the magnitude of establishing a beet industry, a more thorough study is in order.

"On three previous occasions investment was made in beet sugar factories in New York. These were in Rome, 1897 to 1899; Binghamton, 1898 to 1902; and Lyons, 1900 to 1909. These businesses disappeared with so little trace that it is difficult even to find records. All of these were good-sized plants for their day, but they could not obtain the acreage of beets needed to have returns large enough to warrant the using up of the sunken capital. The plants were moved out of the State.

"Michigan and Ohio have had factories closed in recent years in areas with at least as good a beet potential as that for the proposed New York area. These failures alone should be warning that a careful look at the economics of production in New York should be made.

"The possibility of getting acreage enough to support a factory is in itself dubious. There are probably 80,000 acres within a radius of 20 miles of Auburn on which beets might be grown. Experience in other areas indicates that it is economically unsound to haul this bulky crop much beyond 20 miles to a factory. If a 6-year rotation is followed with 1 year in 6 in beets, there would only be about 13,000 acres of beet land available within the economically-desirable range of the factory. A 4 year rotation would make perhaps 20,000 acres available, but is shorter than is desirable.

"As if these problems were not enough, sugar beets are among the more risky crops for farmers to grow. Yields vary greatly from year to year. From 3 to as much as 20 percent of the acreage planted each year is not harvested. For the individual farmer, of course, the proportion of abandonment can be much greater."

Tests Being Made

In 1962, small test plots of sugar beets were planted in Central New York to determine how successfully they might be grown there. This year, larger test plots are being planted to check further on yields and soil adaptability to the crop. A decision on quota allocation awaits the outcome of these tests.

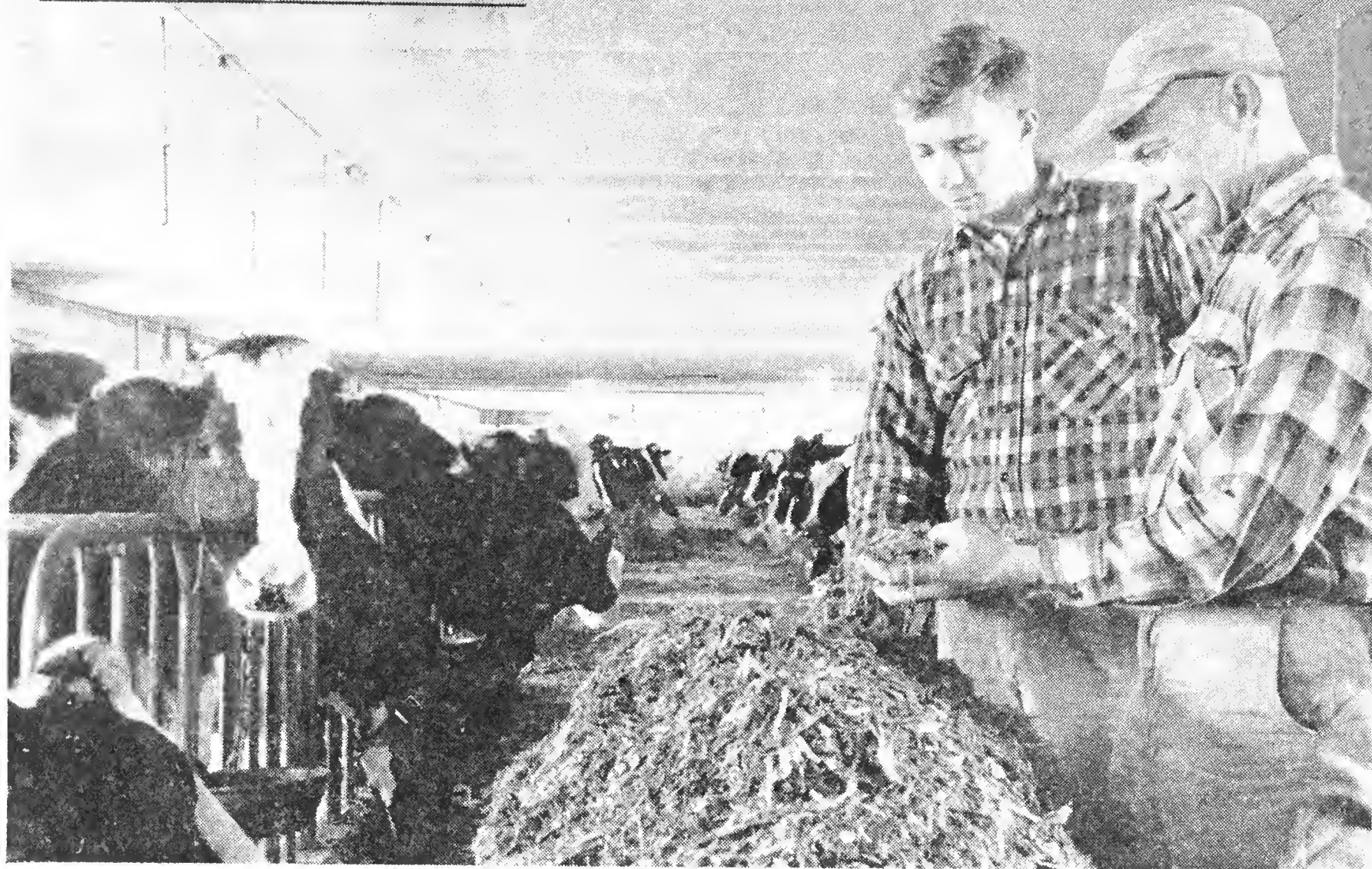
In the light of Professor Kearn's comments, it will be interesting to observe what happens. By the way, it was also interesting to read this comment in the February 16, 1963 issue of the Wisconsin Agriculturist (page 59):

"End of a chapter in Wisconsin farming. That's what you might call the sugar beet-growing business in this State. This profitable sideline for farmers in about 15 eastern counties came to an end last year. The reason: Not enough acreage to keep the Green Bay refinery busy.

"Mechanization can be blamed for this problem too. Small acreages of beets could be harvested by hand a few years ago, but now expensive equipment has come into the picture. The extra machinery just didn't pay off for the small grower, so he got out of sugar beet growing.

"The sugar beet co-op remains intact, but the directors see little chance of beets ever becoming important again."

ANOTHER CORN SILAGE REPORT



In 1962, a drought year, Randall Brockway, right, and his son Dennis harvested more silage than ever before.

Lime helped a \$3,500 investment yield \$13,000

Although the pioneering Brockway family has owned fertile farmland near Hobart, N. Y. for more than 75 years, last season marked the first time lime has been applied to improve the efficiency of fertilizers used in the corn fields.

Randall Brockway, third member of his family to farm the 200 tillable acres, followed GLF soil test recommendations, using three tons of lime per acre to bring the pH up to 6.8.

Investing about \$3,500 for a complete crop needs package, Mr. Brockway planted 65 acres with six varieties of seed, fertilized with GLF Ferti-Flow high analysis 16-8-8, and sprayed the fields with Atrazine to control crop-damaging weeds.

Results?

Yield was more than 20 tons per acre of high-quality corn silage. The harvest of 1,300 tons was modestly valued at \$10 per ton—choice silage worth \$13,000 for an investment (not including labor) of \$3,500.

And while 1962 was a drought year, Mr. Brockway and his son Dennis harvested more—and better—corn silage than ever before. The farsighted farmers plan to use the GLF Complete Crop Needs Package again this year for top-quality, economical corn silage to feed their 85 Holsteins.

GLF is proud to play a part in the future of

the Brockway farm through the facilities of the GLF Service Agency at Stamford, N. Y., and the on-the-farm assistance of George Tischmacher, GLF sales representative. And GLF is ready to help you. For example:

GLF's weed control program for corn conserves the fertilizer and moisture your crop needs for top yields. Atrazine is now GLF's leading herbicide for weed control in corn. To be assured of an adequate supply, order and take your Atrazine needs early. And GLF's Yellow Devil rigs will save you spraying time and trouble. Cooperative GLF Exchange, Inc., Ithaca, N.Y.



COMPLETE CROP SERVICES

Tillable acres	200
Acres planted for corn silage	65
Fertilizer:	
GLF 16-8-8	500 lbs./acre
manure	12 tons/acre
urea	100 lbs./acre plowed down
GLF Lime	3 tons/acre
Seed (best yielding)	Pennsylvania 215 from GLF
Weed Control	
Atrazine from GLF	2½ lbs./acre
Plant population	23,000

Use Lely Spreaders to apply extra fertilizer for higher yields.

Mousetrap Advice Updated

By S. W. WARREN*

IT HAS been said that "If a man will build a better mousetrap, the world will beat a path to his door." I have some doubts about this—I would like to revise the advice to read as follows: "If a man will build a better mousetrap at a reasonable cost, and will then build a path to the world's door, he will be in business."

Better Product

We in the Empire State have made sensational gains in producing better food products than were dreamed of when the Agricultural Society was organized in 1832. Most



Dr. S. W. Warren

of our products are tops in quality—unfortunately, some are not.

Less than a year ago I noticed a bag of potatoes in our cellar with the name of a good New York farmer on it. The potatoes inside were no credit to modern agriculture—they might even have led to an increased consumption of rice in our household. New York fruit growers produce apples of a quality not exceeded anywhere but unfortunately they also sometimes produce and sell some other apples which make the consumer consider eating something else next time.

There are a number of products for which New York producers appear to have special opportunities to offer a "better product." Some are vine-ripened melons, truly sweet corn, cheddar cheese, properly blended applesauce, fresh McIntosh apples, and fresh eggs that are fresh when they hit the frying pan. Many producers are doing a good job with these products, but we have not exploited all our opportunities.

What is a better product?

It is whatever the consumer prefers. For some consumers milk with 2 percent fat is better than 3.5 percent or 5.5 percent—too many dairymen try to debate this. You cannot win that argument.

Consumer Decides

A few years ago the motor magnates of Detroit decided that an automobile too big to fit in my garage was a "better" product. For the majority of Americans this appears to be true, but for a substantial minority a better automobile is a reliable machine that will fit the garage. In the spring of 1959, the Warren family recorded their vote on this matter by buying a car not made in Detroit. Our vote, along with many others, was duly recorded in Detroit—and today we have a Detroit-made auto which fits our garage. The motor magnates decided to stop arguing with me as to how big a car I should have.

Let's take a leaf from this experience. The majority of consumers today want a lot of fat in their diet, but a substantial minority do not. Why not offer the majority whatever they think is "better," and also offer the minority a different product which they think is better? Let's go after all the market.

* Professor of Farm Management, Cornell University.

The opportunity in the future is in "better" products—with "better" defined by the consumer. New York farmers must either match or better the competition, or produce something else.

On February 12, 1863, Ezra Cornell—the founder of Cornell University—delivered an address before the Agricultural Society. Much of his address was devoted to reducing costs. He realized that a revolution in farming methods was underway; it is still going on, and the Big Show is yet to come. We have scarcely begun the mechanization of our dairy

barns. Gutter cleaners, silo unloaders, milking parlors, milk pipelines, and mechanized feeding are in use on some farms, but their adoption as the standard on all farms is yet to come.

Although Ezra Cornell marvelled at the decrease in the back-breaking work of haymaking, we still have changes to make. Too much time is wasted in removing strings and wires from bales; perhaps some ingenious Yankee will take a leaf from our forefathers' book and find how to tie a bale of hay with a string made from the hay itself. We may then see the day when hay is put into storage with no hand lifting, and the cows eat it out with no human labor involved.

We are continuing to adjust to fewer, larger and more technical farm businesses, with the production more definitely planned for a specific market. Let's think a little about that market—the path to the world's door.

Building A Path

In many instances, farmers have been negligent in leaving most of the "path building" to others. Are we overlooking an opportunity? Let's take a look at the Empire State's apple business "then and now."

In 1899, the census reported 15 million apple trees of bearing age in New York. These trees produced 24 million bushels that year—the pro-

(Continued on Page 39)

Among New York Holsteins...

CORNELL STUDIES SHOW ABS DAUGHTERS LEAD THE PRODUCTION PARADE

From 4-year study of unselected daughter records of all Holstein bulls used in New York.

A.I. Stud	Differences*	
	Milk	Butterfat
American Breeders Service	+212	+18
New York Artificial Breeders Co-op	+ 51	+11
Curtiss Breeders Service	+ 20	+11

*Difference between daughter average and concurrent breed average, weighted according to number of daughters for each bull. Includes all Cornell A.B. daughter level reports, January, 1959, through January, 1963.

All artificially sired daughters of Holstein bulls in New York produced more than the concurrent breed average. Beyond that, there is a difference between studs, as illustrated in the table above.

These are the genetic differences only. To eliminate environmental factors, Cornell used herdmate comparisons. For a more accurate picture, the differences are weighted according to the number of daughters for each bull.

These are differences that can be put in the bank! ABS Daughters produced 161 lbs.

more milk than NYABC... 192 lbs. more than Curtiss. With milk at \$4 per hundred, this means \$6.44 and \$7.68, respectively, more per cow per year. And these are strictly genetic differences... experience has demonstrated that good feeding and management multiply this by threefold or more.

The record of performance of ABS Daughters in New York over the past four years speaks for itself... even better, it points to the margin of excellence you can expect in the future. Call your ABS Distributor today.



Get More Milk per Cow through Genetic Build-up with ABS.
AMERICAN BREEDERS SERVICE, INC.

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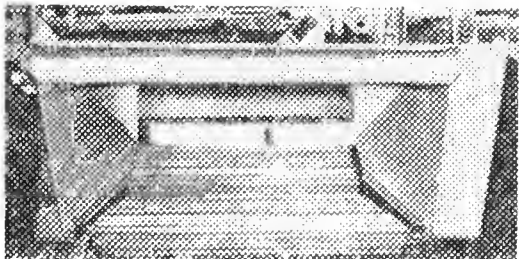


HAY IN ONE TRIP?

Can you really afford 3 separate trips through the field with a tractor-mower, tractor-conditioner and tractor-rake? Get modern efficiency! Harvest hay with the new Owatonna 81 Self-Propelled Windrower . . . cut, condition and windrow in *one* pass! Saves up to \$3 per acre in haying costs, gives you better hay besides. See the new Owatonna 81 . . . just one of four models to choose from in the Owatonna Fleet.

Get these Owatonna exclusives

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- **Planetary Transmissions** — (gears, not belts) for each set of duals give instant power and maneuverability
- **Free-Fulcrum Oscillation** — cutting platform skims over field obstacles to get *all* your crop
- **Operator's Platform** — huge, 6-ft.-4 centrally located platform for control-tower visibility
- **Gear Box Sickle Drive** • **No. 80 Main Drive Chain** • Plus many other features your Owatonna dealer will demonstrate.



Model 101 Hay Conditioner mounts on the tractor frame to permit free flotation of cutting platform. Steel bars power crimp all your crop — thorough but gentle action preserves leaves and nutrients. Depth of crimp adjustable.

Folks who live there say OH- WA- TAH- NA

OWATONNA



Windrowers



Mixer Mills



Bale Elevators



Hay Conditioners



Elevators

PROVE IT TO YOURSELF ON YOUR OWN FARM

Owatonna Mfg. Co., Inc., Owatonna 5-R, Minnesota

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- ☐ Also send free literature on other items circled above.
- ☐ I am a student — send special material.

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COMPLETE DISPERSAL SALE

225 Head Registered Polled Herefords
MONDAY—MAY 27 10 A. M.

- 115 cows safe in calf or with calf at side and bred back.
- 20 bred and open heifers.
- 20 bulls, 3 herd sires.
- 17 herd sire prospects.

Cow herd includes—Mother of Penn State University herd sire and other nationally known bulls and females serving in top herds throughout the United States and foreign countries. Herd sires have sired National Champions B.P.F.—Pawnee Druid Domestic Mischief—C.M.R. and A.L.F. Bloodlines. Clove Creek Farm, Poughquag, N. Y., located 15 miles east of Poughkeepsie on Highway 55. Blair Surber, Cattle Mgr.

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GLENWOOD, MARYLAND. PHONE 301-4894530.

NEW ENGLAND FARMERS ANGUS SALE

45 Females Open and Bred

Cows with calves at side

3 herd sire prospects

6 Feeder Steers

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COWPOX*—RINGWORM

Teat Sores, Skin Abrasions

* Blu-Kote dries up cowpox lesions, controls secondary infection. Germicidal. Fungicidal, protective wound dressing. Quick drying . . . penetrating. 4 oz. bottle \$1.00 at dealers or mailed postpaid.

H. W. NAYLOR CO., Morris 2, N. Y.

**Dr. Naylor's
BLU-KOTE**

STOP Cesspool Troubles Without Pumping!

Pumping or emptying a cesspool or septic tank is not actually cleaning it as your toilet bowl is clogged or your system would not be full. Our cleaner, **SURSOLVENT** dissolves the solids and cuts out the muck and slime crustations on the side wall, thereby releasing the water, correcting the **FAULT** which caused the system to finally fail. No pumping necessary. Users report years of satisfactory results. Free advice including sketches on any sanitary problem you have. Why subject your family's health to the perils of a sluggish or overflowing cesspool or septic tank? **ELECTRIC SEWER CLEANING CO.** Allston 31, Mass

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YEARLING AND TWO YEAR OLD BULLS

From one of the Largest Herds of Clean Pedigreed Cows in the East
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Cruise--Tour

Sept. 12-Oct 24



Istanbul, with its 500 mosques and palaces of the Sultans, is like something out of the Arabian Nights.

ANY TOUR with American Agriculturist and Travel Service Bureau is a thrilling experience, but we are so excited about our Mediterranean-Holy Land Cruise-tour that we wish it were possible for every one of you to visit these far away places with us. The dates are September 12 to October 24, six weeks of glorious fun, lovely scenery, happy companionship, and absolutely carefree traveling.

Just imagine seeing the great Rock of Gibraltar, beautiful Naples and the Isle of Capri, Athens . . . Istanbul . . . Barcelona, Madrid, Lisbon, and the Pyramids and Sphinx in Egypt! And, then, imagine visiting the Holy Land—driving along the same roads, walking down the same narrow streets that Jesus traveled so many years ago! We'll see many of the places we've learned to love from just reading about them — Jerusalem, Bethlehem, the Mount of Olives, Garden of Gethsemane, Lazarus' Tomb, the home of Mary and Martha in Bethany, and the River Jordan.

Here, very briefly, is the schedule for this fascinating, once-in-a-lifetime vacation:

ALL ABOARD! Ten relaxing, pleasure-filled days aboard our ship, the SS INDEPENDENCE of the American Export Lines. We'll follow the Sun-lane across the Atlantic and after reaching Europe, make sight-seeing stops at Madeira, Casablanca, Gibraltar, and colorful Majorca.

ITALY. Five wonderful days in Italy, visiting Naples, Pompeii, Salerno, Amalfi, Sorrento, Capri, and Rome.

GREECE AND TURKEY. Our first impression of Greece will be one of surprise at how beautiful it is. We'll have two days in Athens before going on to Istanbul, the "Pearl of the Bosphorus," with its 500 mosques and innumerable palaces of the Sultans.

LEBANON and EGYPT. An overnight stop at Beirut and an excursion to Cedars of Lebanon the following day. Then, three nights in Cairo with a full-day tour to the Pyramids and Sphinx, with lunch at Mena House.

PALESTINE. We'll have six days in the Holy Land with time to visit

all the well known places of Old Jerusalem and the surrounding countryside. Included will be Church of the Nativity, Shepherds' Field, Rachel's Tomb, Pilate's Judgment Hall, Jericho, and the Dead Sea. Next, we'll cross the border into Jerusalem, Israel and continue our journey to the modern city of Tel Aviv for another day and a half of sightseeing.

FRANCE, SPAIN and PORTUGAL. Two nights at Nice in the heart of the French Riviera, with an excursion to Grasse, the center of the French perfume industry. Next will come Barcelona, Madrid, Toledo, and finally two days in Lisbon, one of the most charming capitals of the world.

HOME BY AIR. The afternoon of October 21, we'll board a luxury air liner in Lisbon and be in New York a few hours later. It won't seem possible that we've been gone six weeks!

Like all American Agriculturist tours, this will be an escorted, all-expense trip, with everything included in the price of your ticket: transportation, hotels, sightseeing, baggage handling, all meals (except beverages at lunch and dinner in Europe), and all tips. Our very competent tour directors will handle all travel arrangements and make this a completely carefree vacation for everyone who goes.

Use the coupon below, and write us today for full details and cost. If you decide to join our party, and we hope you will, don't wait too long to make your reservation, for the number we can take on this tour is limited.

Northwest Holiday

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Mediterranean-Holy Land Tour (Sept. 12-Oct. 24) -----

Northwest Holiday Tour (July 7-27) -----

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This May Change Your Income Tax!

ONE OF THE important changes in the income tax laws of 1962 is the Self-Employed Individuals Tax Retirement Act. This change allows self-employed people, including farmers, to set up a retirement plan into which they can channel business earnings. Payments into the retirement fund will reduce income taxes.

In the past, such plans were available only for employees, and have been widely used by big business. The new act is aimed at securing equitable treatment for the self-employed.

Generally, those who qualify for the Social Security Self-Employment Tax can qualify for the new retirement plans.

Here are some of the important facts farmers will want to know:

It applies to tax years **AFTER 1962**. The farmer can put in \$2,500 or 10 percent of net earnings, whichever is lesser, each year.

Half of the amount placed in the retirement fund for the self-employed owner is tax deductible. Contributions on behalf of other employees are deductible in full.

Regular hired men with three years service or more must be included along with the farmer.

The retirement fund must be supervised. The funds can be invested with an insurance company, a bank, or in special Government bonds.

Benefits cannot be paid to a self-employed individual until he reaches age 59½ or becomes permanently disabled.

It is likely that some farmers with profitable businesses will want to consider a retirement plan which will qualify under the new act. Tax savings could be substantial. Much remains to be learned about the red tape involved, however, and immediate action is not recommended.

It appears that any self-employed person can wait until December 1963 to decide what he plans to do for that calendar year in terms of the Retirement Act. Contact your nearest Internal Revenue Service office for details as they are available.

—Robert S. Smith, Cornell University, Ithaca, N. Y.

MOUSETRAP ADVICE UPDATED

(Continued from Page 37)

duction per tree varied from less than one to about three bushels. In 1959, the census reported 2.6 million apple trees of bearing age, which produced 19 million bushels that year, the production per tree being from seven to almost ten bushels.

If one looked only at the number of apple trees, he might conclude that opportunities in the apple business were only one-sixth of what they were at the turn of the century. But what really were the opportunities in the apple business in 1960? One could pick apples and peddle them quick before they spoiled, or make them into cider and go into the hard cider or vinegar business, or run an apple drier. That about sums up the opportunities.

Today most of the jobs in the apple business are not on the fruit farm. Here are some of the jobs in the apple business which did not exist (or had scarcely started) in 1900:

Production, sale and financing of fertilizer.

Development, production, sale and financing of spray materials.

Operation of controlled atmosphere storage.

Packing apples in consumer packages.

Making canned applesauce.

Making frozen apple slices.

Operating a pie factory.

Should the apple producers take a closer look at some of these other jobs? They represent the "paths" to the world's door. Are the paths in good order? If they are, let's leave well enough alone; if they aren't, growers should get together on improvements.

Similar questions could be raised for all farm products. The answer is not for the farmer to start his personal grocery store. But farmers as groups should in many cases keep control of their products further down the "path" to the world's door.

EASTERN BREEDERS' LAUNCHED

DURING RECENT months, representatives of artificial breeding cooperatives in New York, Pennsylvania, New Jersey, and the New England states have made a complete study of how to provide the best sire programs for the Guernsey, Jersey, Ayrshire and Brown Swiss breeds. They recommended the formation of the Eastern Breeders' Association. The purpose of this organization is to obtain greater breed improvement in the breeds mentioned by developing a complete AI sire proving program among participating studs.

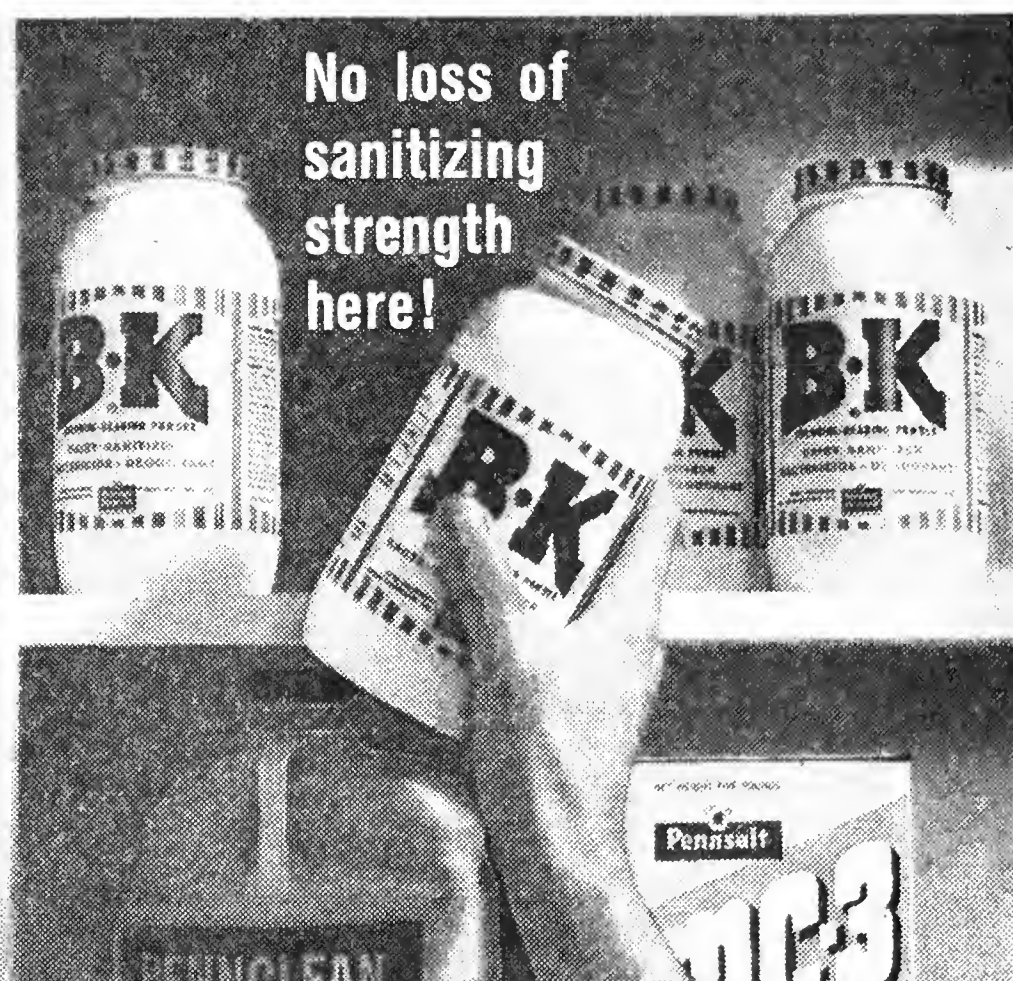
A regional program of selecting and sampling carefully selected young sires can accomplish results that cannot be obtained by the studs individually. The reason, of course, is that a regional approach would allow the adequate testing of more sires in these breeds and thus make more outstanding sires available for extensive use.

The NYABC board designated the four breed chairmen: Guernsey—Douglas Stanton, Greenville; Jersey—Alex Rabeler, Sr., Bovina Center; Ayrshire—Glenn C. Porter, Watertown; Brown Swiss—Stewart Benedict, Massena; and manager Charles Krumm as representatives in the formal organization of the new Association. On April 24 and 25 the first meeting of the Association's board of directors was held at Albany, N. Y.

Representatives from NYABC will work with five representatives from the Pennsylvania-New Jersey area, and five from the New England states.



A SPECIAL corn planter has been used for three years at the Ohio Agricultural Experiment Station to plant corn with no tillage (see above). Herbicides have killed vegetation between corn rows in the picture; good corn yields are reported.



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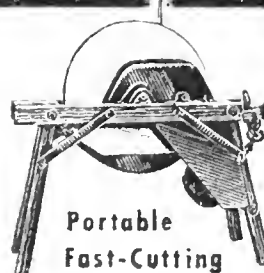
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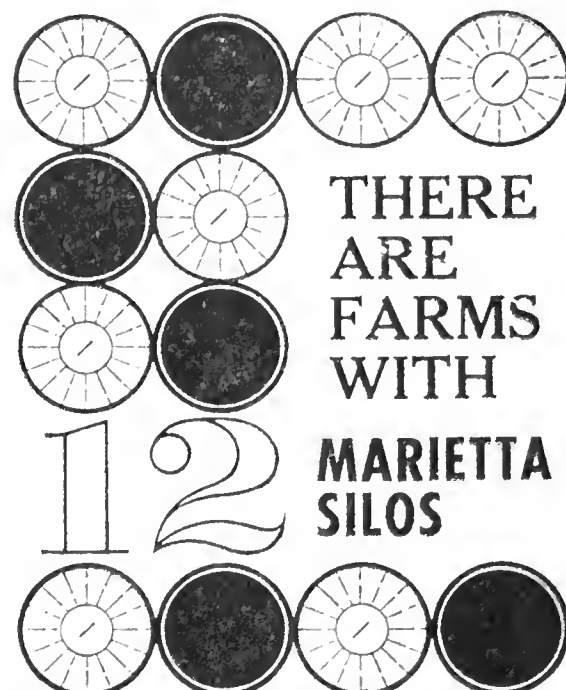
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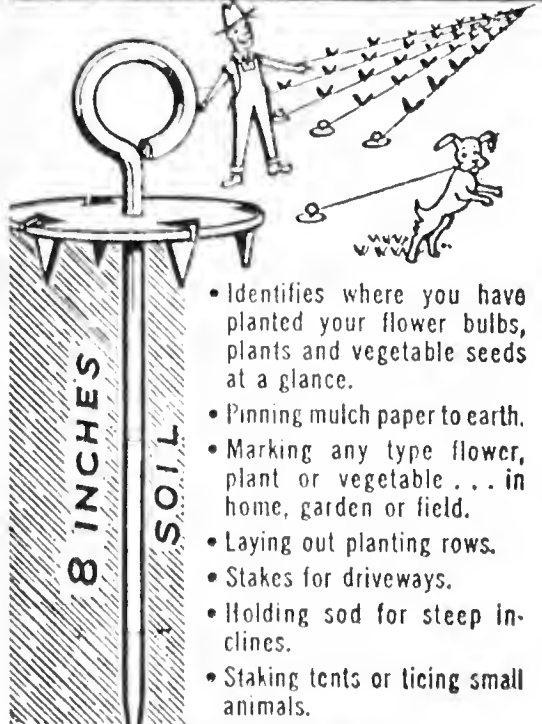
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Say you saw it in *AMERICAN AGRICULTURIST*

Good Spray Materials For The Home Garden

By ARTHUR J. PRATT*

SO MUCH has been written about poisoning our foods with chemicals and upsetting "the balance of nature", that it is difficult to sort fact from fancy. There are, however, a few conclusions that most of us should be able to agree on.

The first one is that chemicals are expensive, and that it is a lot of work and bother to apply them. So, let's not use any when they are not needed, nor on crops that do not need them. For example, most bean diseases are controlled by planting disease-resistant varieties and disease-free seed. If you don't do this your troubles will be legion, for chemicals will not cure those diseases. Disease resistance is one of the goals which plant breeders are looking for in most new varieties.

Planting disease free seed should certainly have top priority. Seed may be disease-free because of the region where it is grown, or because it has

* Mr. Pratt, before his retirement, was a specialist at the Vegetable Crops Department at Cornell University

been treated to kill the disease; the treatment may be with chemicals or hot water. Hot water treatments involve immersing the seed in hot water at just the right temperature and for just the right length of time to kill the disease organism in the seed without injury to the seed itself. Chemical treatments are mostly for diseases that are carried on the outside of the seed. Most of the better seedsmen will furnish treated seeds on request where such treatment is needed.

Another very effective way of controlling pests in the garden is to control all weeds around the garden by keeping the area mowed close, like the lawn. This will often reduce both insect and disease problems — the insects by eliminating their feeding, breeding and hiding places, and the diseases by eliminating the perennial weeds that are frequently a disease reservoir. For example, yellows of asters, lettuce and carrots winters over on plantain, and is carried into the garden by leafhoppers. Therefore it is desirable to eliminate the weeds by mowing, by using 2,4-D, and other

methods. The insects around the garden may be killed by spraying. Frequently an insecticide sprayed around the edge of the garden is about as effective as one sprayed on the vegetables and flowers; spraying both places is, of course, most effective.

That brings us to chemical control of diseases on growing plants. This is primarily a matter of protecting the plants against diseases; once a plant has a disease, chemicals will seldom cure it. Commercial growers use the best and most efficient chemicals for each crop, but the home gardener usually has only a small amount of each of many crops, and he is not likely to have the time, knowledge or money to use the most effective chemical on each crop. Therefore, he is likely to compromise on the one best and safest chemical for general use—or he may decide to expand the list to two or three.

One of the safest and most effective fungicides (disease control chemicals) is Captan. It is useful on flowers, fruits and vegetables. Fortunately, the Pure Food and Drug Law requires that every chemical fungicide and insecticide be labelled to tell just how much to use, on what crops to use it, and when to use it. The five minutes that you spend reading that label may be the most profitable time that you spend this spring.

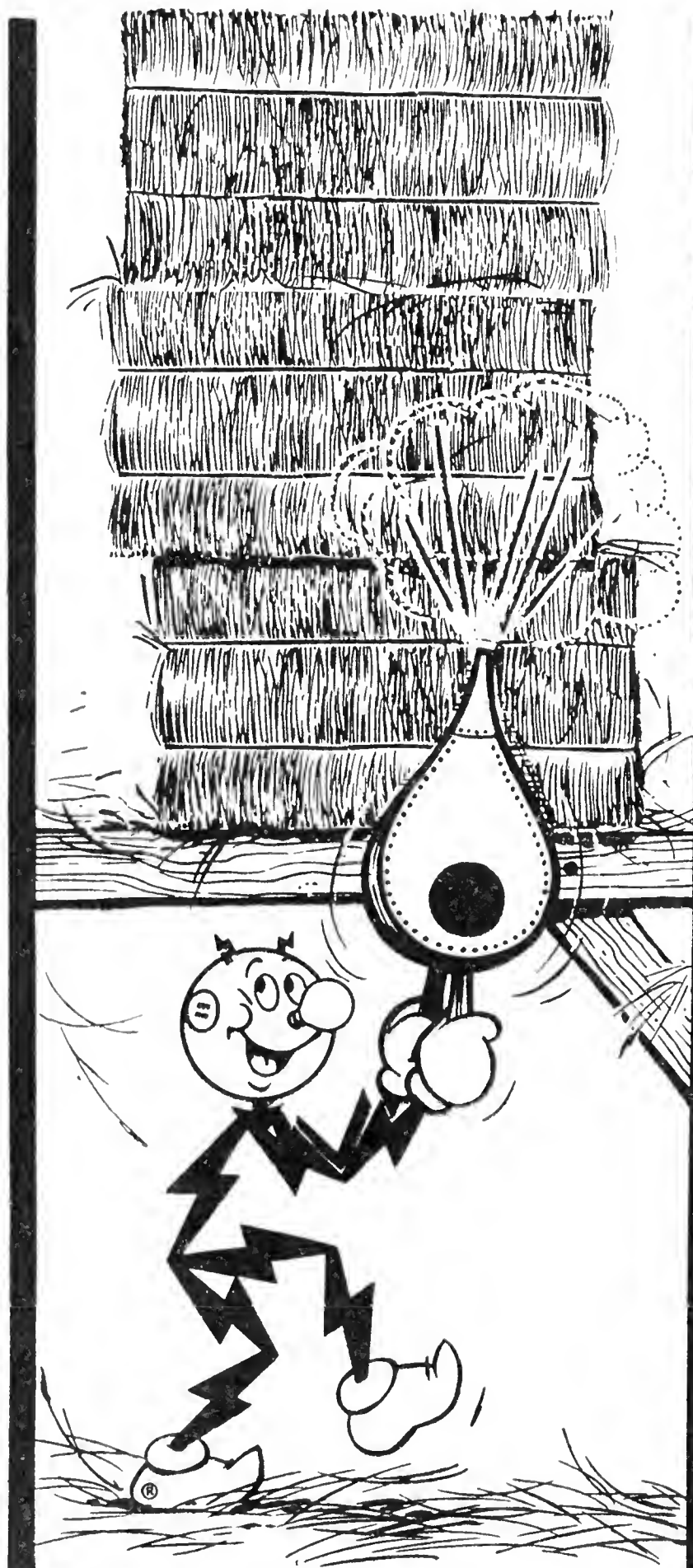
Next after Captan on my list are Maneb (Manzate or Dithane M-22 and M-15) and Folpet or Phaltan. The Maneb sprays are especially useful to control tomato and potato blights and Folpet-Phaltan to control mildew in roses and many diseases of apples, cherries and grapes.

Insect Control

Plant breeders have never been very successful in breeding insect resistance into a crop. Providing good growing conditions is a help, and nature is helpful in providing some insects that will eat other insects—but by the time the good insects kill the bad ones, our crops may be ruined.

Hand-picking some of the large insects may be much more efficient than might be expected by the inexperienced. It is perhaps the best control for the large tomato hornworm, for there are seldom many of them and each one eats a lot. A little careful digging around the base of a plant that was toppled by a cutworm may reveal the culprit and save several plants. Pick the first pair of adult squash bugs before they have laid any or many eggs, and you may save yourself much work and grief at a later date. This process is not useful, however, on many insects because they are too plentiful, too agile, or otherwise difficult to control except with insecticides.

(Continued on Opposite Page)



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(Continued from Opposite Page)

Malathion is generally recognized as one of the safest and yet most effective insecticides. It has a very low toxicity to man and other warm-blooded animals. Sevin is especially effective against bean beetles and Japanese beetles. The label directions should be followed very carefully to avoid injury to certain crops at certain times.

Spray or Dust?

Which is best? A spray is usually cheaper and more effective because it is likely to stick better. It is slower to apply, however, and heavier to handle than a dust. Even so, most gardeners eventually turn to spray because it is more effective.

A recent pesticide development is single-dose-packaged chemicals that require no measuring; just drop one plastic-covered tablet in the recommended amount of water and stir or shake the mixture. If one figured the per-pound cost of the chemical in the plastic-covered tablets he might be shocked—but if he has only a few plants to spray at one time, this might be the most economical way to do it—and it's an easy way to be sure of making a spray of the proper strength.

My spray chemicals shelf is always stocked with 50 percent Captan wettable powder and 25 percent liquid Malathion for making the proper garden spray. A Maneb wettable powder is perhaps next in line, and Folpet or Phaltan should be considered. I am strongly considering the purchase of some plastic-covered tablets for Japanese beetles. My spray shelf is high so no small children can reach any of the chemicals. No one need fear being poisoned by eating properly sprayed fruits or vegetables, but there is a real danger to small children from spray chemicals—and medicines, too—that are within their reach.

PESTICIDE TESTS

IN VIEW of public interest and apprehension—over pesticides and their residues, it is good to know of the laboratories established at Geneva and Ithaca by the New York State College of Agriculture for determination of pesticide residues. The work is done in conjunction with the College's practical and experimental spray programs.

Over 1,500 residue analyses have been made over the past year, representing 2,500 pesticides and 38 different commodities such as meat, milk, fruit, vegetables, soil, and other materials.

Time was when the enforcement of the federal laws on foods and drugs entailed long hours of laboratory work. Now much of the work is done by an instrument with the big name of electron capture gas chromatograph. This instrument has the ability to separate the pesticides from the food, identify and isolate them, and record the whole process. The detector is so sensitive that some pesticides can be determined in quantities of one part of the chemical in 1 billion parts of the food—a level generally far below the residue levels considered safe for marketable products. A sample can be extracted and analyzed in 30 minutes.

Research work continues as more and more chemicals are developed, in an unending effort to establish safe recommendations for the use of pesticides and to safeguard public health.—D. J. Lisk, A. W. Owens and L. R. Mattick, Cornell University

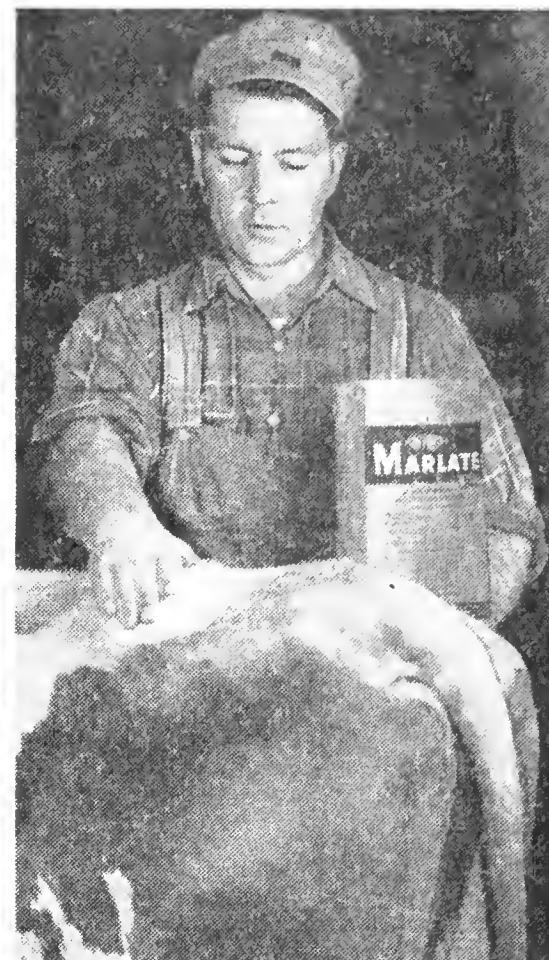
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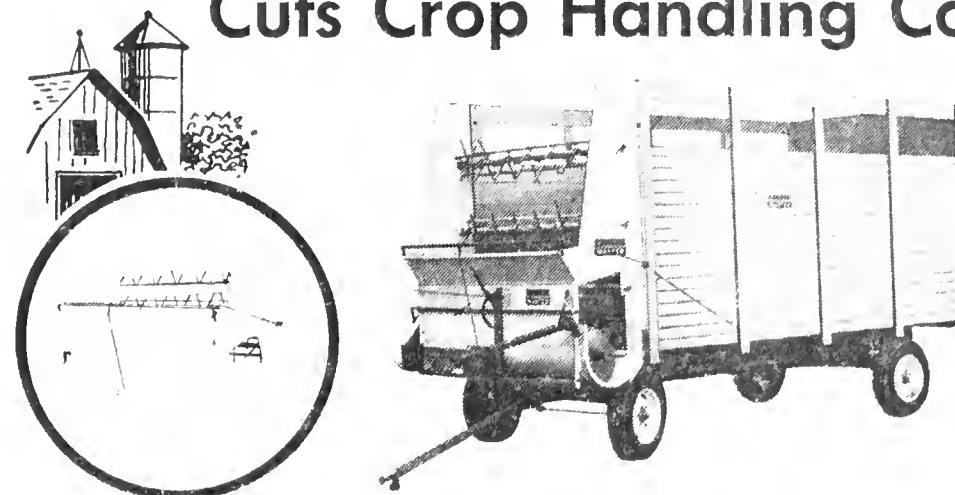
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LET'S PLAN A BUFFET

By
Alberta D. Shackelton

A BUFFET MEAL is a delightful way to entertain friends, especially a larger group than you can seat at your dining room table. It requires a minimum of linen, china, and glassware and may be used for any "party meal"—breakfast, lunch, or dinner, for one of the increasingly popular brunches, or for a late supper after an evening party. Plan one for outdoors, too, now that warmer weather is here.

Buffet-Style Service

A simple first course may be served in the living room, if desired. Place a tray with a pitcher of cold juice or hot consomme, crackers, appropriate glasses or cups, and small, gay paper napkins on a side table, and let guests serve themselves. This allows the hostess time to place the prepared dishes on the buffet table.

For the simplest of buffet service, the guest picks up the whole main course on one dinner plate, adds a fork, and carries his plate to a comfortable place to eat. The menu for this type of service will include only food to be eaten with a fork and buttered breadstuff. To make it a little more comfortable for your guests, you may provide each with a colorful tray on which he can place his filled dinner plate, napkin, silver, and glass or coffee cup.

Guests may be served the beverage after being seated, or water and coffee service may be set up on a side table for them to serve themselves. Dessert may be served directly from the kitchen after first course dishes are removed, it may be placed on a side table, or the buffet table may be reset for dessert self-service.

The Buffet Table

A buffet may be arranged on any flat surface in the dining room, living room, or even the kitchen. The guests should be able to move around and serve themselves easily without crisscrossing and having to reach across a wide table. Use a tablecloth, or a beautifully polished table needs only protectors under hot dishes. Place centerpiece to back of table if table sets against a wall, otherwise in center of table. A fruit arrangement, cake to be cut, or tarts or pie wedges to be used as dessert could act as a centerpiece.

China and food are arranged on the buffet table so as to be picked up in logical order. Dinner plates (heated as for any service), hot dishes, cold dishes, salads, breadstuffs, relishes, fork, and napkin are the usual order. Candle warmers, hot tray plates, chafing dishes, and covered casseroles help keep foods hot. Serving fork and spoon are placed by each dish, and some room should be left so guest may set down a dinner plate for easier serving.

The Buffet Menu

Your buffet menu may be as simple or as elaborate as you desire, depending on your interests and time schedule. Generous quantities of a few excellent dishes can be just as interesting as numerous dishes. Plan to keep foods on your kitchen shelves and in your freezer which will let you get together quickly spur-of-the-moment buffet meals.

Here are three buffet meals I have found it easy and fun to prepare and serve. Recipes are given for the starred items.

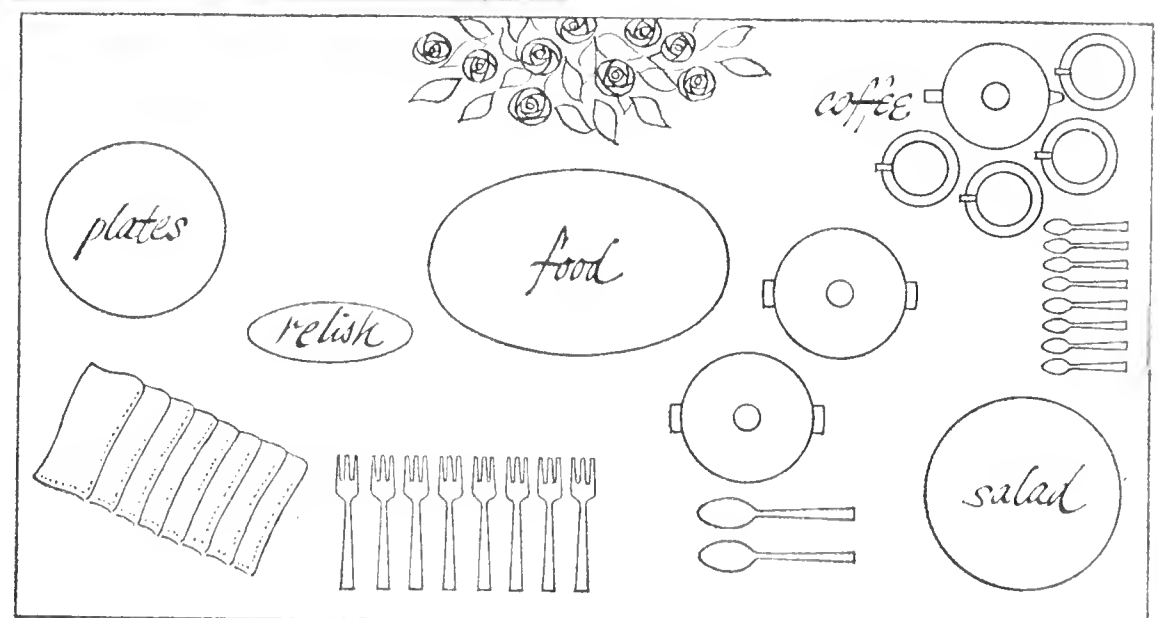


Photo: Dudley-Anderson-Yutzy

This tempting buffet meal features ham and chicken pilaf, fruit compote, tuna pate with crackers, and a beautiful no-bake cheese cake.

Diagram below shows buffet table arranged in logical sequence for guest movement from left to right. Many hostesses prefer to place napkins and forks last, to be picked up after the foods.

Photo: Glassware Institute of America



smaller groups, freeze in two separate freezer-to-table casseroles.

LARGE MOLDED SALAD

- 3 packages cherry or lime flavored gelatine
- 5 1/4 cups liquid (water and fruit juice, or part gingerale)
- 1 can pears (8 halves), drained
- 16 whole maraschino cherries
- 4 pineapple slices cut in halves, drained
- 2 cups seeded and halved Tokay grapes
- 1 large can fruit cocktail, drained
- 2 cans Mandarin oranges, drained
- 1 cup finely chopped celery
- 1/2 cup coarsely cut pecans, if desired

Drain all fruits well. Add enough water to juice from canned fruit to make 5 1/4 cups. Heat about half the juice to boiling and dissolve gelatine in it. Add remainder of liquid and cool. Lightly grease with salad oil a large ring mold of 9 to 10-cup capacity.

Place an inch or two of the gelatine mixture in the mold and chill until lightly set. Arrange pear halves

end to end, rounded side down, in bottom of mold. Place a cherry in the spaces between pears on outer and inner sides of ring. Add enough of the gelatine to cover fruits and again cool until just lightly set.

Stand pineapple halves around edge of mold, cut side down, and fill in between slices with some of the halved grapes. Combine remainder of the drained fruits, celery, and nuts with remaining slightly thickened gelatine mixture and carefully fill the mold. Be sure to have the mold filled to top to make unmolding easier. Chill thoroughly overnight.

At serving time unmold salad on large round plate. Place crisp greens around edge of plate and in center of mold, a container of dressing made by folding whipped cream or whipped dessert topping into salad dressing to which a little grenadine sirup has been added. Serves about 16.

CORN SOUFFLE

- 2 cans cream style corn
- 2 tablespoons flour
- 2 tablespoons sugar
- 1/4 teaspoon salt
- 1 cup milk
- 6 egg yolks
- 6 egg whites, beaten stiff

Combine corn, flour, sugar, salt, and egg yolks. Stir in the milk and fold in the stiffly beaten egg whites. Pour mixture into a lightly greased 2 1/2-quart casserole. Place casserole in pan of hot water and bake uncovered in a quick moderate oven

MENU NO. 1

- Chilled Fruit Juice (in living room)
- *Casserole of Chicken Melange
- *Large Molded Fruit Salad
- Relish Plate (radish roses, celery curls, bread and butter pickles, cottage cheese)
- Crescent Rolls
- Chiffon Pie
- Currant Jelly
- Coffee

MENU NO. 2

- Buffet Glazed Baked Ham
- *Corn Souffle
- Asparagus Spears with Mushroom Sauce
- *Frozen Fruit Salad
- Orange Bread
- Baking Powder
- Biscuits
- Brownies
- Coffee

MENU NO. 3

- *Chicken Breasts Supreme and Potato Balls (frozen)
- Green Julienne Beans with Toasted Almond Chips
- Citrus Salad Plate with Grenadine Salad Dressing
- Date Bread
- Cloverleaf Rolls
- Ice cream Cream Puffs
- Coffee (choice of sauces)

CASSEROLE OF CHICKEN MELANGE

- 3 cups cooked rice
- 4 cups cut-up cooked chicken
- 1 package frozen peas, cooked
- 1 pound sliced, sauteed mushrooms (about 1 1/2-2 cups)
- 3 tablespoons chopped pimientos
- 12 large pitted black olives, halved lengthwise
- 1 cup toasted slivered almonds
- 3 cups well seasoned chicken gravy, medium thickness
- 2 cans condensed cream of chicken soup, undiluted
- Buttered cracker crumbs

Starting with the rice, place in alternate layers in a greased shallow 2 1/2-quart casserole or baking dish the rice, chicken, peas, and the combined chicken gravy and cream of chicken soup. Arrange over each layer the mushrooms, pimientos, olives, and almonds. Top with buttered crumbs, lightly browned. Serves about 16.

Note: 3 cups of broth made with bouillon cubes and thickened with 1/2 cup flour may be used in place of chicken gravy. Also, turkey, ham, or a combination of seafood may be substituted for the chicken. Casserole may be assembled early in the day and slipped into the oven ahead of serving time to heat thoroughly. Or, you may make casserole and freeze for later use. If making recipe for

(375°) about 60 to 75 minutes, or until set and a knife comes out clean when inserted into middle of souffle. Serves 8 to 10. For 12 generous servings, make an additional half recipe in a 1 1/2 quart casserole.

FROZEN FRUIT SALAD

- 1/2 large package cream cheese (about 4 oz.)
- 1 cup salad dressing
- 1 cup heavy cream, whipped
- 1/2 cup confectioners' sugar
- 1 cup miniature marshmallows, softened in 1/4 cup fruit juice
- 1 cup pineapple, cut up
- 1 cup Mandarin oranges
- 1 cup halved, seeded Tokay grapes
- 1 cup pitted white cherries

Soften the cream cheese, add the salad dressing, and beat until smooth. Blend in the sugar and fold in whipped cream. Combine remaining ingredients and fold in. Place in an oblong pan about 7x11x1 1/2 inches deep and place in freezing unit of refrigerator. Freeze until firm, at least 6 hours or overnight. Cut in 12 squares. Decorate top of each square

(Continued on Page 47)

SEW AND REAP A WARDROBE!

9027. Slimming sportswear for larger figures—jacket, slacks, sun-top, Bermuda shorts. Printed pattern in Women's Sizes 34-48. See pattern for yardages. 35 cents.

9121. Basic beauty to sew with high or scooped, scarf-tied neckline. Printed pattern in Half Sizes 12½-24½. Size 16½ takes 3¼ yards 39-inch fabric. 35 cents

9041. Step-in casual with smart yoke and tab detail. Printed pattern in Half Sizes 14½-24½. Size 16½ takes 3¼ yards 35-inch fabric. 35 cents.

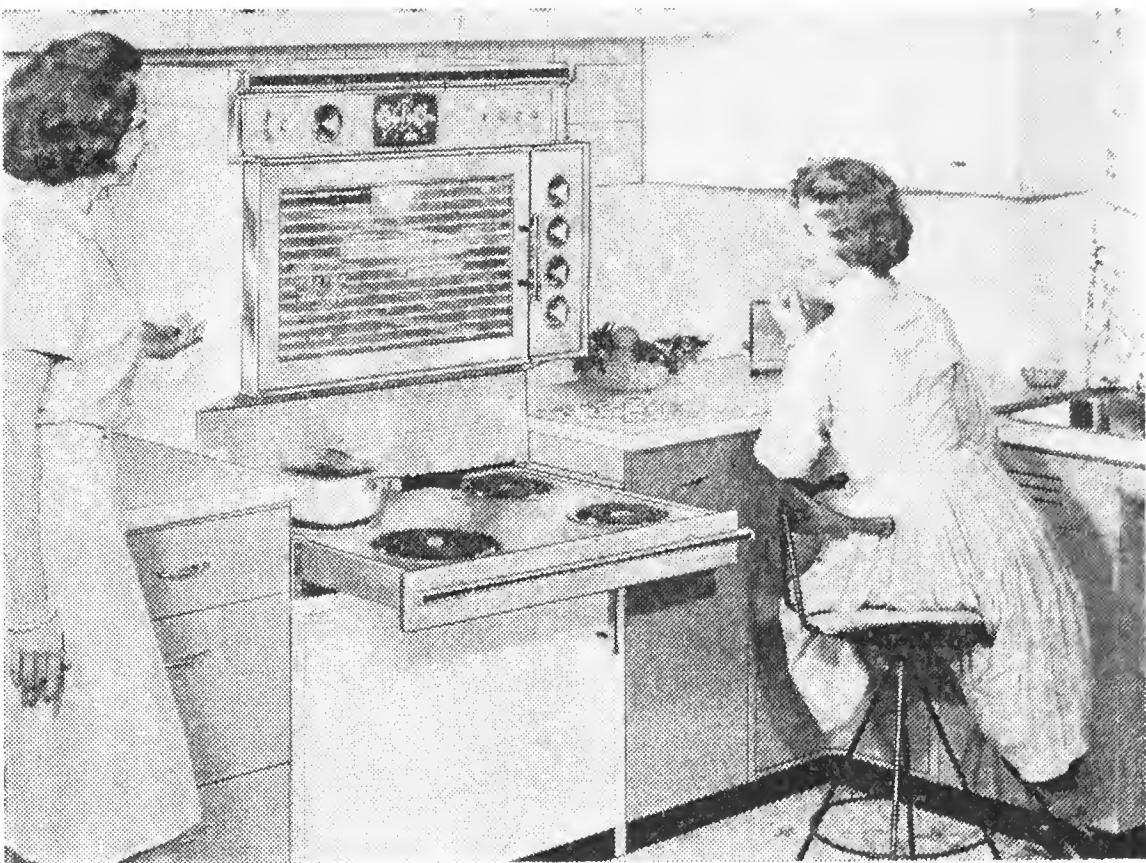


4648. Six-gore sundress with wide shoulder straps, button-on capelet. Printed pattern in Women's Sizes 36-48. Size 36 outfit takes 4¾ yards 35-inch fabric. 35 cents.

4701. Simple and sew-easy! Note the smart A-line flare. Choice of necklines. Printed pattern in Misses' Sizes 10-18. Size 16 takes 2¾ yards 35-inch fabric. 35 cents.

4831. Curved seaming, smart pockets for this tab-collared sheath. Printed pattern in Misses' Sizes 10-20. Size 16 takes 3¼ yards 35-inch fabric. 35 cents.

9473. Smooth, box-pleated sundress and boxy, buttoned jacket. Printed pattern in Half Sizes 12½-24½. Size 16½ outfit takes 5¾ yards 35-inch fabric. 35 cents.



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FABULOUS "400" ELECTRIC RANGE

Tappan lets you bake, broil and clean without bending or stooping. Controls are easy to use, but out of the reach of children

EYE-LEVEL CONTROLS . . . Automatic Clock—just set the clock to start and stop the oven. Frees you for other important duties. Roast Control—dial the degree of "doneness" and the automatic control does the rest. Automatic Element—means no more potwatching. Maintains exact heat you dial.

VISUAL-HITE OVEN . . . has sparkling chrome interior to reflect heat far faster baking and more even browning. Wipes clean in a jiffy. Includes Rattisserie as standard equipment, roast control probe, two plated racks—one reversible, Hi-style Visualite window, removable oven bottom, removable oven seals.

VISUAL-HITE BROILER . . . Hi-speed broiler element features variable broiling temperatures—lets you adjust heat instead of adjusting meat. Two-piece broiler drains grease from heat zone, removes far cleaning. Removable chrome spatter shield protects oven sides while broiling.

HIDEAWAY COOKING TOP . . . slides out of the way when not in use. Features three measure-heat infinite tap units, one Set'N Forget automatic element—all snap out for dishpan cleaning. Lusterloy cooking top, backsplash with 2 convenient outlets, one automatically times, reset button, tap light switch, fluorescent illumination of cooking surface.

SMART MATCHING BASE CABINET—(Optional) Makes installation a breeze. Range mounts easily on separate base cabinet then slides into any 30 inch kitchen space. Cabinet provides added storage space where you need it plus Lazy Susan swing-out shelves for easy access to items stored in the rear.

Ask your Tappan dealer to show you the FABULOUS "400" electric range.

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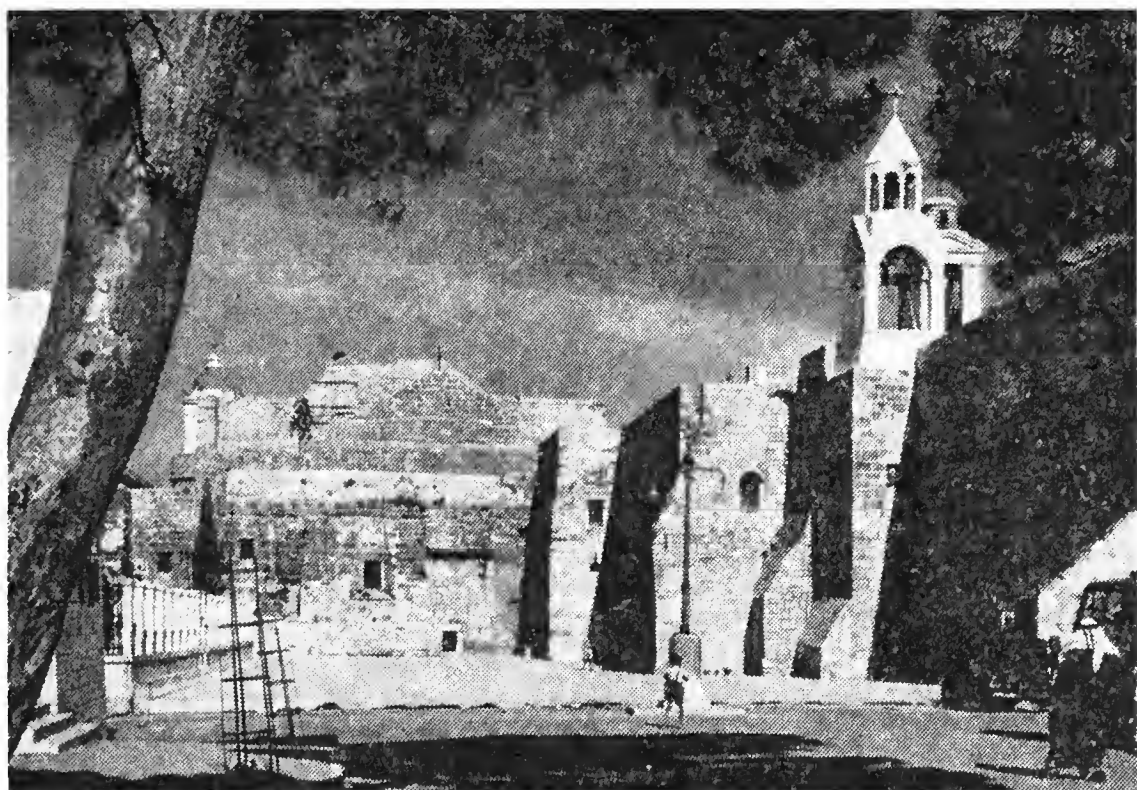
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PATTERNS are THIRTY-FIVE CENTS each. Send orders (with coins) to: AMERICAN AGRICULTURIST, Pattern Dept., Box 42, Old Chelsea Station, New York 11, N. Y. Please write name, address, pattern size and numbers clearly.
Send FIFTY CENTS (in coins) for our "Fashions to Sew" catalog of Printed Patterns. With this new catalog, look forward to an exciting summer. After reviewing the 304 design ideas, choose ONE pattern as our FREE gift to you. To receive the pattern of your choice, mail the Coupon you'll find inside the catalog.



For the first time, this year's Mediterranean Tour visits the Holy Land where you'll see this Church of Nativity in Bethlehem on the site of the basilica built (A. D. 330) by Emperor Constantine; under it is the grotto, traditional site of the manger.

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AMERICAN AGRICULTURIST MEDITERRANEAN TOUR

SEPTEMBER 23 — OCTOBER 24

under the direction of Travel Service Bureau

If names like Sorrento, Capri, Pompeii, Athens, Istanbul and the Holy Land whet your travel appetite, this is your tour, for these are only a sampling of what you'll see and the places you'll visit. For complete itinerary and full cost details, mail this coupon today—there's no obligation.



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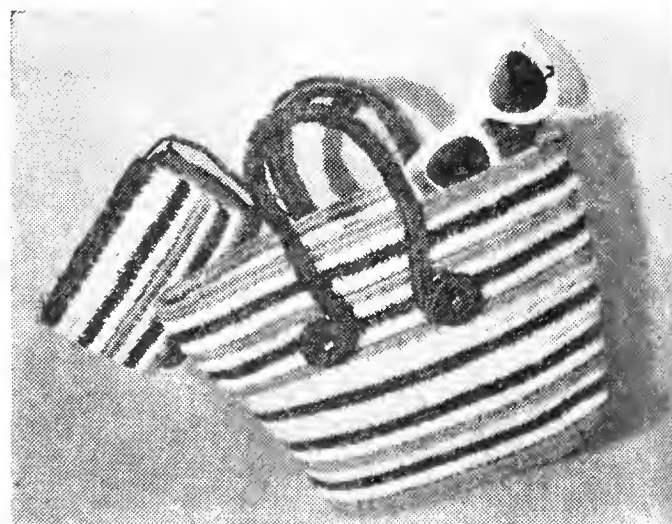
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Striped Bag and Purse S-460.
Crochet your way into warm
weather with this handy bag
and matching change purse,
using three contrasting
colors. Instruction leaflet
10 cents.

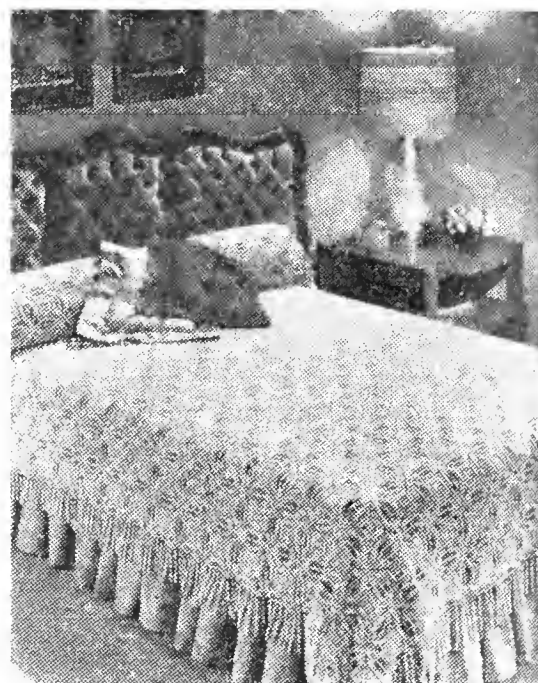


Hairpin Lace Hat PC-8263. Hairpin
lace appears in an unexpected set-
ting in a darling cap that no teen-
ager could fail to admire. It's made
in strips with the loose ends tied to-
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Instruction leaflet 10 cents.

Spread to Show with Pride, A-109.
The popcorn stitch and contrast be-
tween closed and open work bring
forth this handsome spread. Spirals
of curly fringe give the finishing
touch of perfection.

Instruction leaflet 10 cents.

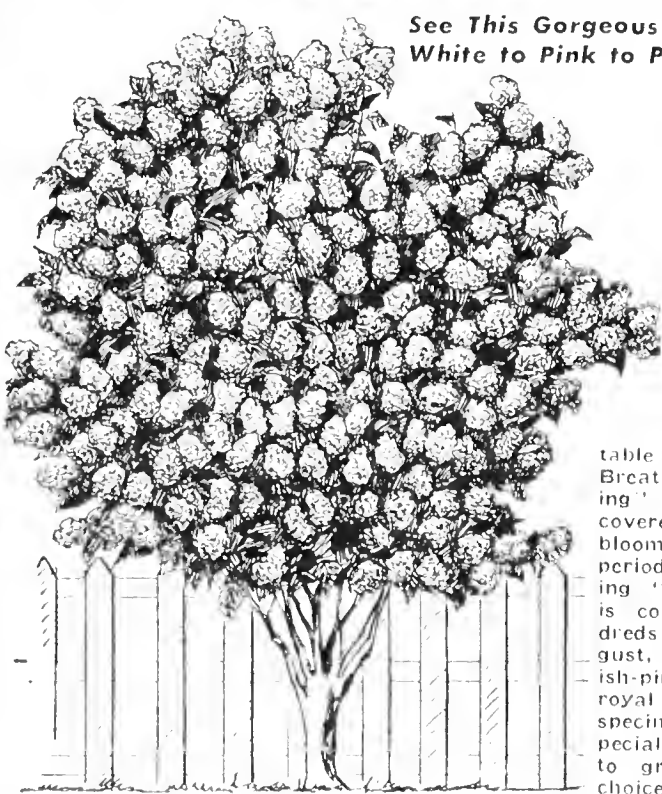


Kitchen Set S-487-8-9. Ensembles...
the keynote for your kitchen this
spring! Included in this set of cro-
cheted go-togethers are cafe cur-
tains, place mats, glass jackets, stool
pillows, and a fruit basket—all to
match! Instruction leaflet 10 cents.



"Milk Glass" Jackets S-798.
These casserole and tumbler
jackets are crocheted repli-
cas of "Milk Glass," a fam-
ous example of Early Ameri-
cana. Crochet the set in just
a few hours.

Instruction leaflet 10 cents.



See This Gorgeous Flowering Tree Change From
White to Pink to Purple in Your Yard!

SENSATIONAL Color Changing HYDRANGEA TREE

One-half \$1
Price ea.
only (3 for \$2.00)
(8 for \$4.00)

Now—in order to secure new customers, we are offering one of nature's most unforgettable sights at 1/2 the catalog price. Breathtakingly beautiful "color changing" Hydrangea Trees (Hyd.P.G.) are covered with masses of gorgeous blooms from summer to late fall—a period of several months. This amazing "color changing" Hydrangea Tree is covered in mid-summer with hundreds of snow white flowers—in August, the flowers turn a beautiful bluish-pink, and, finally, in the fall, to a royal purple. An excellent tree for specimen or ornamental planting. Especially nice in groups of three. Easy to grow. Fast growing. You receive choice 2 to 4' trees guaranteed to have a strong, vigorous root system. ORDER TODAY! While our 1/2-price sale lasts. SEND NO MONEY. On delivery, pay \$1.00 for 1 tree, \$2.00 for 3 trees, or \$4.00 for 8 trees, plus C.O.D. charges. On prepaid orders, add \$.50 to help postage and handling charges. If not 100% satisfied, we'll gladly refund your money—you don't even have to return the trees. Free planting booklet included with every order.

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Box 367, Ithaca, New York

Please send me the following leaflets (check ones wanted):

Bag and Purse S-460 _____

Bedspread A-109 _____

Lace Hat PC-8263 _____

Kitchen Set S-487-8-9 _____

"Milk Glass" Jackets S-798 _____

I am enclosing _____ (10 cents in coin for each leaflet):

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Long Livingroom

Our livingroom is 12' x 18'; the fireplace is in the north end with the entire 12-foot wall in natural pine wood boards. I am enclosing sketch of floor plan.

There are 5 antique oriental rugs (3' x 5') which have the typical deep red, blue and brown colors. Davenport and a large chair are in taupe mohair. I want slip covers for these. There is also a black rocker with dull rose, red and gilt stencil, a mahogany card table and desk.

Woodwork is painted ivory, and walls and ceiling are white plaster. I have new sheer dacron, straight white curtains at the triple windows on the east, with the center window uncovered except by the valance which is light colored with an indefinite gold and black tracery design. Should the curtains cover the center window?

The west wall is the only large unbroken area. How would it be to paper this side, and what color would you suggest on the other walls and woodwork? I do not want to do anything to make the room seem longer.—Mrs. W.F., New York

Since the room has an eastern exposure, you can use cool colors, as green or blue, especially since you have the warm reds in your oriental rugs. A soft grayed blue green, or yellow green, very light, on the east and west walls and ceiling, and a slightly darker shade of the same color on the south side will make the room appear wider and shorter, as the darker wall on the south side will appear to come forward. A warm or cool light gray could also be used.

HOME WORKSHOP



Add charm and beauty to your home with trellises and flower boxes. Pattern 314, which gives complete directions for a variety of types, with actual-size cutting guides for all curves and shaped parts, is 35 cents. This pattern also is included in Packet No. 38—Lawn and Garden Furnishings which contains three other full-size patterns for things to make and sells for \$1.00.

Send orders to AMERICAN AGRICULTURIST, Pattern Dept., Bedford Hills, New York.

American Agriculturist, May, 1963 —

A patterned paper on the unbroken 18-foot west wall would also make the room appear shorter, as the pattern breaks up the appearance of a plain area. However, since you have patterned rugs on the floor and in the valance at your window and on your Boston rocker, a figured wall might be too much pattern and cause confusion. The more plain areas you have, the more spacious and relaxing is the room. The woodwork should be painted the same color as the walls.

The middle window does not have to be curtained. Draperies are not necessary today unless you wish privacy. More and more decorators are using the Japanese trend of simplicity and bringing the outdoor gardens or beautiful views into the

room by not covering the windows with draperies.

The patterned material of your valance should be repeated in your room, used as a slip cover or on cushions. If you use light gray or light green on the walls, you can use your warm tones of grayed rose and gold in a textured material for your slip covers, or any combination of the colors in your rug in a textured tweed for the slip cover on your davenport, and gold or rose on the chair.

In arranging your furniture, you can also gain the appearance of width in your room by placing the long pieces, as the davenport, across the 12-foot south wall. Do not accentuate the length of your room with long pieces of furniture.

WISH

By Eleanor Alletta Chaffee

If I could be what I long to be
Just for a day, now, let me see . . .
Maybe a cricket under a leaf,
Maybe a mouse—a furry thief.
Perhaps a kitten with velvet shoes
Or a humming bird of a thousand hues?

No, not these! I know what's best—
When the sun drifts gold in the glowing
west

More than almost anything,
I'd be a kite with a broken string
Riding high on the lightest breeze
Over the houses, over the trees,
And never a tug to bring me down
To everyday sights in the everyday
town.

But much as I dream and long to go
It can never happen to me, I know!



BIG TROUBLE

A tractor accident. A serious, long-term illness. Suddenly you need cash. Lots of cash. Where are you going to get it? Ordinary health insurance won't give it to you. That only takes care of ordinary problems. You need *big trouble* insurance... the kind that pays and pays until you're out of the woods.

GLF Members Insurance is designed by farmers for farmers. It works like this: GLF picks up the tab after the first \$50.00 and pays 80% of all covered medical bills up to \$5,000 per illness or accident. If a different accident or serious illness occurs, payments start all over with a new benefit period. GLF Members Insurance

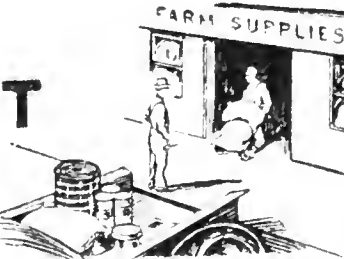
covers medical expenses in the home as well as the hospital. It pays up to \$4,000 in life insurance, too, and covers you, your wife and dependent children and your hired man and his family. It's complete coverage. And the cost is surprisingly low.

Write today for complete details on GLF Members Insurance. Find out why more than 13,000 farmers in New York, New Jersey and Pennsylvania subscribe to the plan and consider it the best possible insurance for farmers in the Northeast. Write today.

Cooperative GLF Exchange, Inc.,
Ithaca, New York



With AMERICAN AGRICULTURIST Advertisers



Pictured above are the busy grounds of the Columbiana Tire Test Center owned by the FIRESTONE TIRE & RUBBER COMPANY, Akron, Ohio. Driverless tractors go round and round the dirt, gravel, and concrete tracks, busily testing tread wear and other things affecting tire performance. It's all a part of Firestone's continuing research program dedicated to better tires for the farm.

Among the contributors to the agricultural research work at the Cornell University Experiment Stations at Ithaca and Geneva are American Cyanamid Company, Cooperative G.L.F. Exchange, Inc., Geigy Chemical Corporation, New York Artificial Breeders' Cooperative, and Shell Chemical Company.

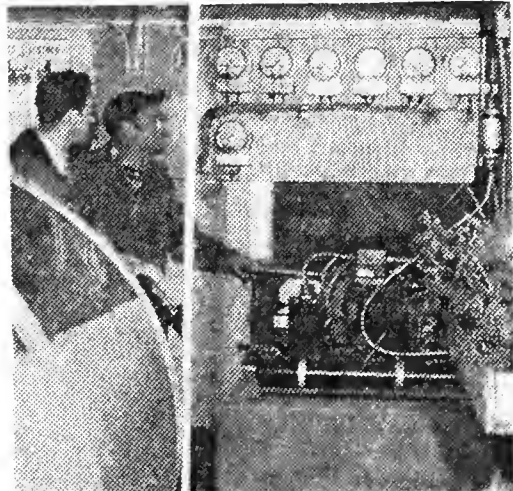
According to Jack Watts, Public Relations Director for AMERICAN BREEDERS SERVICE, 325 North Wells St., Chicago 10, Illinois, this company is moving ahead on several important fronts. They include working on better dairy sire proofs (based on progeny testing), beef sire proving program, a plant relocation and building program for even better facilities, and modification of semen distribution system. Perhaps veteran dairy bull buyer Lec Lamb expresses the ABS position best when he says, "When any organization stops changing, it had just as well be covered up."

An improved cooling system for bulk coolers has been introduced by MOJONNIER BROS. CO., 4601 West Ohio Street, Chicago, Ill. The new VG 3 control provides minimum maintenance, lower power consumption, and lower storage temperatures without icing.

The movie which the experts said couldn't be filmed in the dairy barn, has walked away with a Centennial Film Festival Award in Washington, D. C., according to the U.S.D.A. The film, "Reminder to Dairywomen," presents a stirring message on how to control mastitis in the dairy cow as well as how to milk cows most efficiently.

Prepared by BABSON BROS. CO., 842 W. Belden Ave., Syracuse 1, N. Y., the film presents the sage observations of Dr. Charles W. Turner, world renowned authority on milk secretion and a member of the Department of Dairy Science at the University of Missouri.

Last fall, in its first major model change since 1957, the FORD MOTOR COMPANY'S Tractor and Implement Operations, Birmingham, Michigan, introduced an entirely new line of 13 four-cylinder farm and industrial tractors. Just recently, the company announced the introduction of a new series 6000 tractor with more than 100 improvements and refinements. The introduction of the new 6000, which will be available in either a diesel or gasoline six-cylinder engine, completes a program to improve every tractor in the company's line, says Emory Dearborn, general operations manager.



Lindsay Trerise (left), sales representative for NIAGARA MOHAWK POWER CORPORATION, and Lloyd W. Flack, Potsdam, New York, check electric meters in the Flack milk house. Note the attractive planter on the right. Around the Flack farm are 37 different electric meters, part of a study instituted by Niagara Mohawk to measure in electrical energy the work that "the silent farmhand" does over the course of a year. The meters were installed October, 1962; each is metering the energy used by a single appliance.

Also participating in the study is William Toner, whose farm is near Utica, New York. On the Toner farm 28 electric meters are working around the clock. Appliances covered include those used both on the farm and in the households.

W. L. Voegeli, manager of marketing, Farm Equipment Division, ALLIS-CHALMERS, Milwaukee 1, Wisconsin, recently received a national award for sales promotion inventiveness from Industrial Marketing magazine for the company's "Land of Power" promotion. His award winning plans stimulated farm tractor sales during September, October, and November last year. Tractor sales for the three-month period were 118 percent over those for the same months a year earlier. Retail sales of the entire Farm Equipment Division increased by 23 percent for the first eleven months of 1962.

Anyone interested in receiving two new catalogs covering three Allis-Chalmers tractor models can write to the above address and ask for bulletin TL-2496 or bulletin TL-2621.

The first gasoline-powered chain saw to have a gearshift lever for control of chain speed has been announced by HOMELITE, Riverdale Ave., Port Chester, N. Y. Changing from one gear to another requires only dropping the engine to idling speed, pressing the brake and clutch button, and moving the shift lever. It permits starting the engine in neutral and provides the flexibility required for a full range of cutting operations.

Two new items of equipment have been developed by DEERE & COMPANY, 3300 River Drive, Moline, Illinois. They include a new full-sized baler with a "compact" price and a low-cost hopper blower with variable fan speeds to match silo height, crop being blown, and horsepower of the tractor powering the blower.

The new baler is called the 24-T Twine-Tie Baler. Special equipment includes the new John Deere No. 2 Baler Ejector, sometimes referred to as the baler-thrower with "swivel hips." It pivots from side to side for greater throwing accuracy—the pivoting controlled by a standard remote hydraulic cylinder.

The variable-speed fan on the hopper blower is an exclusive feature. Fan speeds can vary between 540 rpm to 1,000 rpm.

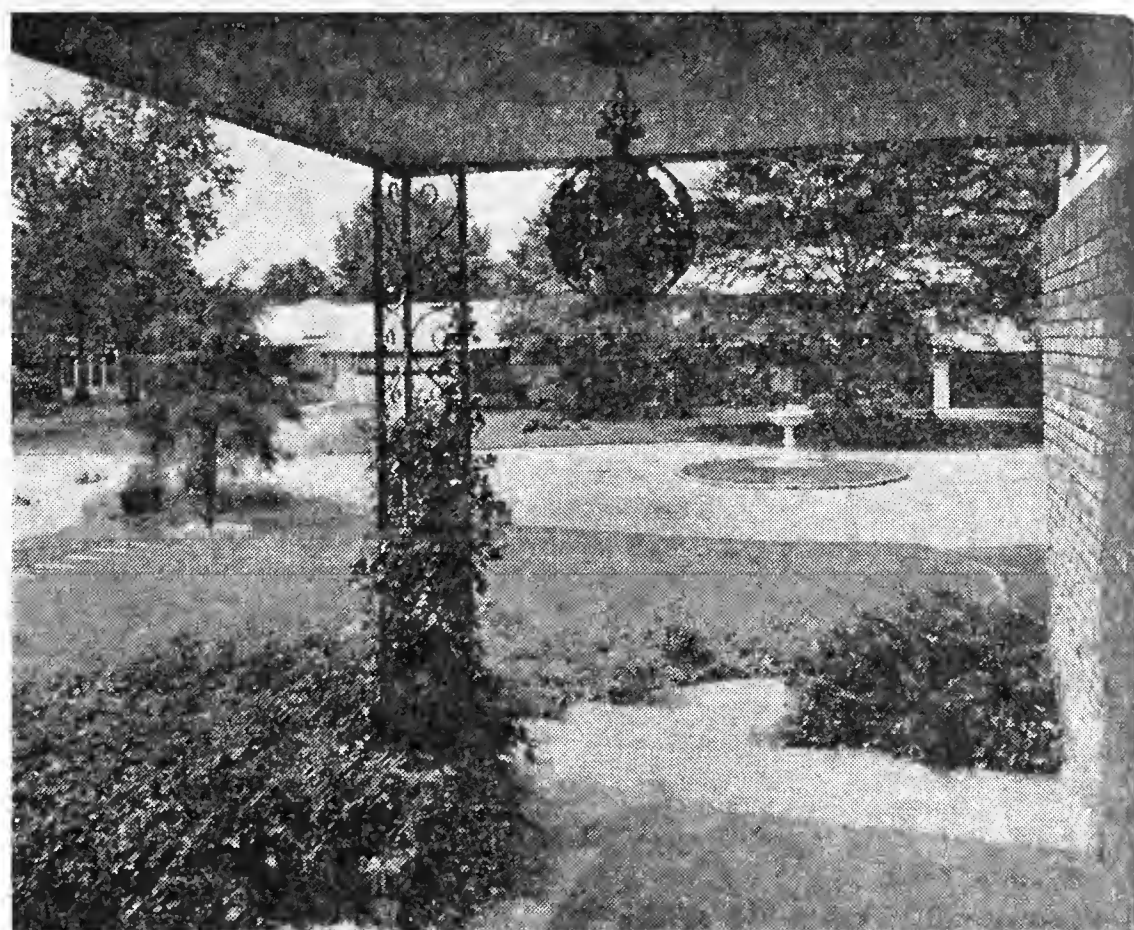


Photo: Amer. Ass'n. of Nurserymen

The well-tended look of the home grounds in this picture shows that maintenance does pay big dividends.

Maintenance Is Important

By NENETZIN R. WHITE

THIS MONTH, let's talk about maintenance, for it's an essential part of your home plantings. Both your money (invested in a good plan, I hope) and nice plant material are wasted if the plants are not carefully tended.

The first thing your plants need is sufficient water, and if nature doesn't provide this, you must. Thorough watering is very important, for frequent shallow sprinklings will only encourage the plant roots to come to the surface in search of water. Then, when you do water heavily, the roots will not be down deep where the water is available to them. Don't, however, rule out a light sprinkling of the foliage during hot weather. This washes the dirt off the leaves, and the plant will absorb some of the water and literally breathe more easily. This spraying of plants, in particular newly transplanted ones, is also necessary if it is dry or windy. Do this even before the plants leaf out. Soon after being transplanted, nice fat buds will often dry out and drop off deciduous plants during hot, windy weather.

Mulches, usually peat moss, help keep roots cool and retain moisture in hot weather. They also prevent rapid changes in soil moisture and temperature. Weeds should be kept out of beds, of course, and away from the base of plants. Edging beds makes them neat and attractive, and cuts down on maintenance time and effort. Cultivation is also a good practice except in the case of shallow-rooted plants such as azaleas and rhododendrons.

Feeding—A "Must"

Feeding is inexpensive, and is a "must" to keep your plants in prime condition. I like to use organic or partly organic fertilizers because of their long lasting qualities. Use one high in nitrogen for your lawns, shade trees and evergreens. Bone meal is tops for all flowering and fruiting plants, along with an occasional application of a complete fertilizer.

Pruning, if done from the beginning, is simple. Nip back long branches

of your foundation evergreens to keep them sturdy and thick. Before flowering shrubs get too large and ungainly, cut out some of the larger canes at ground level, and trim back the top unevenly, a bit like feathering hair. A rule of thumb is to prune flowering plants within a week or ten days after they bloom. Shade trees may need to be pruned for overlapping branches or to remove a weak crotch. "Feather" leaves on the stem of a newly planted shade tree should be left on the first year, and then removed during the late fall or winter when the tree is dormant.

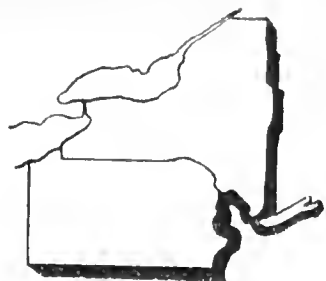
Watch For Disease

Keep a look out for disease and insects. This should not be a big problem, for most of our plants are healthy. Experience shows that plants, like people, are much less susceptible to illness and disease when fed a balanced, ample diet. Moral: A well fertilized, well watered plant is almost always a healthy one.

When you spot disease or insects, get after them at once, and the problem will not be great. In disease and insect control, your nurseryman should be able to recommend one good combination spray or dust that will cover almost any problem. Remember Rachel Carson's advice! These are poisons, so handle them with care. Don't inhale the dust or fumes, and wash thoroughly after handling any insecticide. Read very carefully the directions on ALL sprays, and please keep them out of the reach of children.

Lawns also need to be fed. Too many people figure that one fertilization every year or two is all they need for a good turf. This is NOT so; your starving grass needs two or three feedings a year. Just stop and think how many plants are growing in one square foot of space, compared to the rest of your plantings. It's a wonder that many lawns survive! The healthy, well fed ones are resistant to most lawn problems. Use a fertilizer high in nitrogen and, if possible, one with a high organic content. This will eliminate burning. And do follow directions exactly.

News and Views from
NEW YORK AND
PENNSYLVANIA



Safety Council — At its last meeting, the New York Rural Safety Council discussed plans for collecting information on the causes of rural accidents. The organization promotes activities that will help rural people become more aware of how to avoid accidents. Commissioner of Agriculture Don Wickham, who attended the meeting, commented that farming is one of the more hazardous occupations.

Leads Tour — Starting August 3, Harlo P. Beals, retired assistant director of research with the G.L.F., will lead a delegation of New York agricultural, business and professional leaders on a 20 day goodwill tour of northern Europe and Russia. The purpose of the tour is to promote understanding and goodwill, both for the American people and the government.

Renting Into Farming — Charles Lundy, Towanda, Pennsylvania, was chosen as the State's Star Dairy Farmer and received a check for \$100. The amazing part about Charles's dairy record was the small amount of his total over-all investment. He has 45 cows, and works on a rental basis on his mother's farm, while his father retains the 228 acre home farm, and the two tailor their

farming operations to help each other. Charles feels strongly that getting started in farming without an excessive debt will pay off in the long run.

Increase in Value — The average value per farm in New York State increased from \$23,900 to \$27,700 between 1959 and 1962, according to Professor C. A. Bratton, farm economist at the New York State College of Agriculture. In the same period the average size of farms increased from 164 to 188 acres.

Potato Conference — The Long Island Agricultural Coordinating Committee will be host July 15 to 17 to the National Potato Utilization Conference. The conference will open in Riverhead on the Monday, dovetailing into the 50th annual meeting of the Potato Association of America.

Cornell News — Robert H. Greig of Red Hook, New York, has been elected president of the Alumni Association of the New York State College of Agriculture. Vice presidents are Donald C. Whiteman, Adams, Robert Everitt, Schenectady, and Francis Sears, Cortland. Professor Stanley W. Warren was re-elected secretary-treasurer.

A big step in automation (which has taken seven years in preparation) has been achieved in the New York State Dairy industry. Information on 90 percent of the Dairy Herd Improvement Association herds in the State has been recorded in a machine at Cornell University. The project was started in 1956.

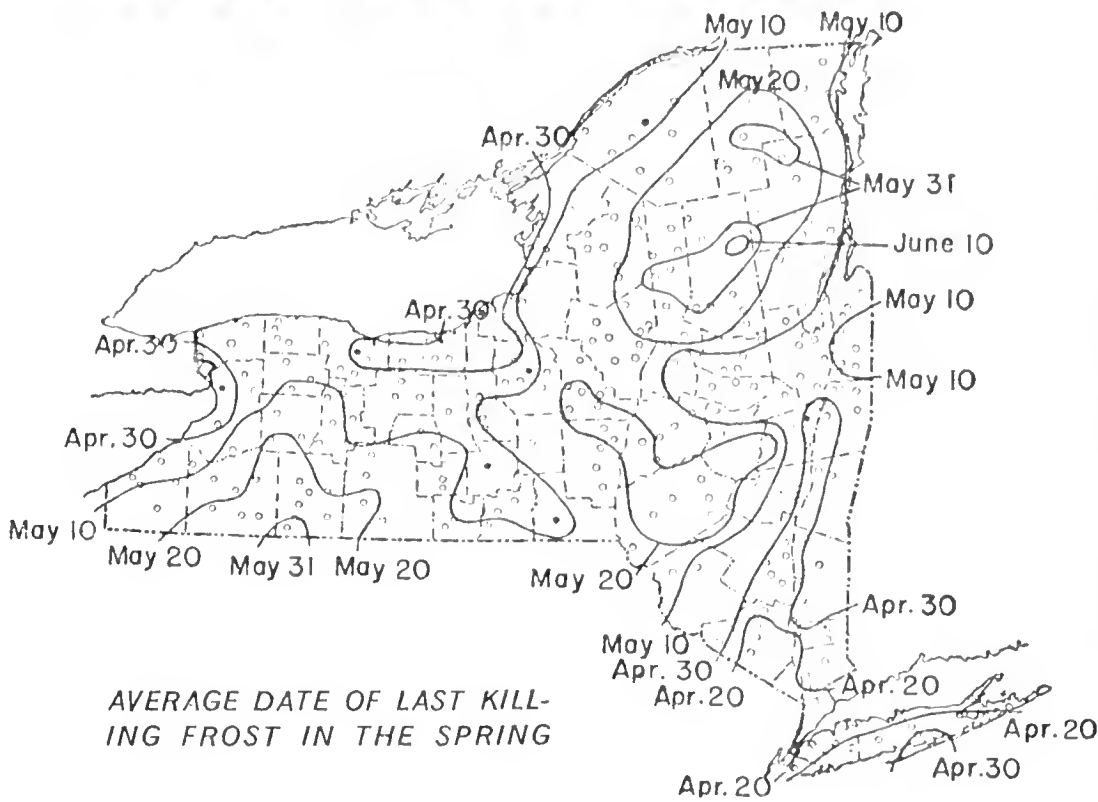
Cornell scientists have found formulas for artificial soils that are expected to greatly benefit New York State plant growers. The new soils are called Peat-Lite Mixes. One (Peat-Lite Mix A) combines in equal volume peat moss and vermiculite (#2 Terralite), a mineral substance heated to 1400 degree Fahrenheit. The other (Peat-Lite Mix B) uses perlite, a form of volcanic rock that has expanded from being heated to 1800 degrees Fahrenheit, in the same proportion.

Limestone, superphosphate, and fertilizer are added to both. The mixes may also be used for house plants, with the vermiculite mix perhaps the best for home owners since it holds water better. Ask your county agent for Cornell Extension Bulletin 1104, which explains the mixes.

Soil Stewardship — Governor William W. Scranton of Pennsylvania has designated May 19 to 26 as Soil Stewardship Week, and called upon the public to support all soil conservation efforts.

New Director — Clarence W. Funk, New Cumberland, Pennsylvania, has been named director of the Pennsylvania Department of Agriculture's Bureau of Markets. He will correlate all phases of the Department's marketing program for the promotion of Pennsylvania agriculture — and work closely with the many related agribusiness industries.

What's your
frost free date?



AVERAGE DATE OF LAST KILLING FROST IN THE SPRING

Getting anxious to set out those tomato plants?

Better have a look at the frost record for your hometown, on the map above! On the average dates shown, the risk of frost is 50 percent, which is entirely too great for tender crops.

The map was compiled at Cornell University, from records at about 150 reporting stations, over many years.

For official Weather Bureau forecasts, tune in on WEATHER ROUNDUP at 6:25 and 7:15 A. M.; 12:15 and 6:15 P. M., over these stations:

FM STATIONS

Auburn	WMBO-FM	96.1 mc.
Binghamton	WKOP-FM	99.1 mc.
Bristol Center-Rochester	WMIV-FM	95.1 mc.
Cherry Valley-Albany	WJIV-FM	101.9 mc.
DeRuyter-Syracuse	WOIV-FM	105.1 mc.
Hornell	WWHG-FM	105.3 mc.
Ithaca-Elmira	WEIV-FM	103.7 mc.
Jamestown	WJTN-FM	93.3 mc.
Niagara Falls-Buffalo	WHLD-FM	98.5 mc.
Olean	WHDL-FM	95.7 mc.
Wethersfield-Buffalo	WBIV-FM	107.7 mc.

AM STATIONS

Auburn	WMBO	1340 kc.	Olean	WHDL	1450 kc.
Binghamton	WKOP	1360 kc.	Remsen	WREM	1480 kc.
Boonville	WBRV	900 kc.	Rochester	WROC	1280 kc.
Dunkirk	WDOE	1410 kc.	Salamanca	WGGO	1590 kc.
Elmira	WENY	1230 kc.	Saratoga		
Glens Falls	WSET	1410 kc.	Springs	WSPN	900 kc.
Gloversville	WENT	1340 kc.	Sayre, Pa.	WATS	960 kc.
Hornell	WWHG	1320 kc.	Schenectady	WGY	810 kc.
Ithaca	WTKO	1470 kc.	Syracuse	WHEN	620 kc.
Jamestown	WJTN	1240 kc.	Syracuse	WOLF	1490 kc.
Niagara Falls	WHLD	1270 kc.	Utica	WBVM	1550 kc.
			Walton	WDLA	1270 kc.

Northeast Radio Network



Brought to you at 7:15 A.M. by the
Cooperative G.L.F. Exchange, Inc.

LET'S PLAN A BUFFET

(Continued from Page 42)

with sliced strawberries and small sprigs of watercress or sections of Mandarin oranges and cherry. Arrange squares on crisp curly endive.

This salad is rich enough to serve as both salad and dessert in a meal. If you wish more color in the salad, pour maraschino juice or grenadine sirup over top of salad, or fold in sliced maraschino cherries.

CHICKEN BREASTS SUPREME

- 6 large whole chicken breasts
- 1/2 cup butter
- 1 cup chicken broth
- 2 cans condensed cream of chicken soup
- 1 cup sliced and sauteed fresh or canned mushrooms
- About 1 cup milk or thin cream sauce
- Salt and pepper

Skin chicken breasts and remove bones (if desired), and cut each in half. Coat each piece lightly with flour, sprinkle with salt and pepper, and saute in the butter until light brown on both sides. Place breasts single layer in a large shallow pan. Add chicken broth and bake in a moderate oven (325°) about 45 to 60 minutes, or until tender.

For serving, arrange breasts on large heated plate, and pour over them the mushroom sauce. To make sauce, combine condensed chicken soup, enough milk to make consistency of thin to medium cream sauce, and the mushrooms, and heat. If desired, place each piece of breast atop a thin slice of precooked ham before covering with sauce. Serves 12.

Note: If you have a large enough oven-to-table shallow dish to hold the breasts, place them on this after browning, cover with the sauce, and heat in the oven before serving.



Classified Ads

PUBLISHING AND CLOSING DATES

June Issue ...Closes May 4

July Issue ... Closes June 1

August Issue Closes July 6

ADVERTISING RATES

25 cents per word, initial or group of numerals. Example, J. S. Jones, 100 Main Rd., Anywhere, N. Y. Phone Anywhere 15R24, count as 11 words. Minimum charge \$2.50. Blind Box Number \$2.50 extra, includes address. Send check or money order to AMERICAN AGRICULTURIST, P. O. Box 514, ITHACA, N. Y. Advance payment is required.

DAIRY CATTLE

COWS FOR SALE—T.E. and Bloodtested. Holsteins in truckloads. E. C. Talbots, Leonardsville, N. Y.

WISCONSIN DAIRY COWS—new arrivals each week. Good deal for every dairyman. Free delivery—one cow or truckload. If you are interested in adding good cows and improving your dairy herd, you will be calling the right man. I am interested in building up a good reputation with the dairy farmers of your community. Reuben Greenberg Inc., Columbus, New Jersey, 3 miles south, exit 7 New Jersey Turnpike. Out of State use area code 609. Phone 298-1021 or 298-1664.

FOR SALE: REGISTERED Brown Swiss heifer calves from one month to one year old. NYABC breeding. Priced reasonable. Chris Fox, RD#2, Fort Plain, N. Y.

FOR TOPS IN Livestock Marketing—Regular weekly sales and farm auctions: Empire Livestock Marketing Cooperative.

WANTED: 100 TO 1,000 Holstein heifer calves to board for 2 years on N. E. Kansas disease-free ranch. Write or call Don Wheeler, Sumnerfield, Kansas.

HOLSTEINS

FOR SALE—150 WELL grown choice Holstein heifers, most from artificial breeding. June to October freshening. Noblehurst Farms, Inc., Linwood, New York. Phone Pavilion 584-3866. Nite-Pavilion 581-3686.

AYRSHIRES

AUCTION—MILKING Herd and Bred Heifer Dispersal at Partridge Hill Farm, Barneveld, N. Y., Thursday, May 16, at Noon. 12 Miles North of Utica, turn E. on Rt. 28, follow signs. 32 Cows (16 Polled), 22 First-Calf Heifers (6 Polled); and 14 Bred Heifers (9 Polled). 10 recently fresh, 2 due in June, 4 in July, 10 in Aug., 9 in Sept., 5 in Oct. Sale includes a daughter and 6 granddaughters of Graycrest Freda with 23,793 M 4-27 1003 F at 8 yrs. and 13 daughters (9 Polled) of 100,000 lb. Milk record cows. This is a very well-bred herd. Cows have not always had an opportunity to do their best here. It will be a good place to get excellent values. Health: Accred., Certified, Calif. Vac., tested within 30 days. Bred females pregnancy checked. Catalog at the farm and from Tom Whittaker, Sale Mgr., Brandon, Vermont.

FOUR 3 YEAR OLD Registered Ayrshires. Make me an offer. Laura La Due, RD1, Box 351, Utica, N. Y. Telephone RE 3-0096.

BROWN SWISS

REGISTERED BROWN SWISS since 1881. Heifers all ages. Phone 673-9381, Louis Earnes, Collinsville, Conn.

HEREFORDS

REGISTERED POLLED Herefords. Cows—heifers—calves. Barton-Miller Farms, Dryden, N. Y. Est. 1838. P.O. R.D. #2, Freeville, N. Y. SELLING entire herd of fifty registered Herefords. All were raised on farm. Fred Anderson, Box 202-RD2, Red Creek, N. Y.

REGISTERED POLLED Hereford yearling bulls. Champion bloodlines, clean pedigrees. Weaning weights and rate of gain available. Visitors welcome. A. B. Price, Keller Rd., Clarence, New York.

20 REGISTERED HEREFORDS for sale. Calves, young heifers, bred cows and excellent sire. Sell as herd or separate. Lawrence Sullivan, Middle Road, Dover, New Hampshire.

REGISTERED POLLED Hereford Yearling Bulls. Sam Oswald, Penn Yan, N. Y. Phone Stanley LY-6-3892.

ABERDEEN-ANGUS

CHOICE YOUNG ANGUS bulls and heifers sired by 1980# bull. C. C. Taylor, Lawtons, New York.

FOR SALE OR TRADE. Outstanding Black Angus herd sire. 6 yrs.; gentle disposition, excellent health. Mr. Eileenmore GH 2456459 July 4th, '56. Or will trade for registered heifers. Contact Bill Conley, Gilbert Hill, Groton, Mass.

ANGUS HEIFERS, cows and bulls. All registered stock. Moderate prices. Shadow Lawn Farm, Suffern, N. Y. Elmwood 6-3072.

CHAROLAIS

NEW YORK STATE grown Charolais bulls and heifers for sale. Ray Vaughan, Essex, N. Y.

HOME-BRED CHAROLAIS. Selection of one and two-year-old bulls and heifers. Boquette Farm, Willsboro, New York.

CHAROLAIS BEEF CATTLE

CHAROLAIS—200 HEAD registered and recorded bulls, cows, heifers for sale. Reasonably priced. No Saturday sales. Flying Horseshoe Ranch, Morris, Pennsylvania.

GOATS

DAIRY GOATS small investment, good return. Learn how. Factual magazine, 6 months, \$1.00. Dairy Goat Journal, Columbia N-36, Missouri. ENTIRE HERD OF fresh French Alpine goats reasonable. Harlow Terwilliger, Arkport, N. Y.

BURROS

BURROS, GENTLE, all sizes, reasonably priced too! Niles Wilcox, Masonville, New York.

SHEEP

REGISTERED DORSET LAMBS, rams, ewes. Lloyd Palmer, Meridale, N. Y. Oneonta GE2-4538.

REGISTERED CORRIÉDALES. Ewes—rams, lambs. Barton-Miller Farms, Dryden, N. Y. Est. 1838. P.O. RD#2, Freeville, N. Y.

SUFFOLK LAMBS, some crossbred ewes. \$15.00. Jacques, Union Street, Norfolk, Mass.

HAVE SHEARS WILL travel. Contact Edward Peckham, Farm Bungalow, University of Massachusetts, Amherst, Mass. Alpine 3-7363. Also 2 Shropshire rams priced right.

TWENTIETH ANNUAL (Open) New York State Stud Ram and Ewe sale July 27. For entry blanks write Fred H. Zautner, RD#2, Brewerton, New York or Warren Brannan, College of Agriculture, Ithaca, New York.

SWINE

REGISTERED BERKSHIRE service boars and weanling boars and gilts. Unrelated groups from Certified Litters, sired by Champions. Richard Crye, Avon, New York.

REGISTERED YORKSHIRE boars, gilts, weanling pigs. Arthur Gabrielse, Highland Road, Lyons, New York. Phone WH6-4730.

BERKSHIRE Boars, gilts and weanling pigs from quality stock. Frank L. Kelly, Rock Stream, N. Y.

REGISTERED "SAND HILL" Landrace pigs, young boars, open gilts, and weanlings. Haragones Farm, R.D. 2 (Sand Hill), Unadilla, New York.

DOGS

COLLIE PUPPIES, championship breeding. Beautiful, intelligent. \$30.00-\$35.00. Plummer McCullough, Mercer, Pa.

AKC AIREDALE: Wire Fox puppies, year around. Tourtellotte, Morris, N. Y.

BEST IN BORDER Collies, imported stock. Six weeks to six months \$20—\$50. Dunsmore Farm, Swanton, Vt.

COLLIES, COCKERS, Beagles, Fox Terriers. Woodland Farms, Hastings, N. Y.

BORDER COLLIE PUPS. Know your bloodlines. Buy the best. Carlton Eberstein and Son, Perry, New York.

TWO MALE BORDER Collie pups, one female yearling spayed. D. Schuyler Crosby, Sprakers, N. Y. Tel. Cobleskill F4-3249.

BABY CHICKS

FREE CATALOGUE, beautiful 4-color pictures. Over 67 rare and common varieties chickens, bantams, ducks, geese, guineas. Chicks, eggs, stock. Murray McMurray Hatchery, Box B71, Webster City, Iowa.

ROCKS, REDS OR CORNISH \$3.95-100. Large White Rocks \$5.49. Over 50 other breeds—Leghorns, heavies and crosses \$1.35 to \$5.75. Pullets \$10.50. Before you buy, compare our prices. We guarantee to save you money. Customers choice of breeds shown in terrific big free catalog. Shipment from hatchery your section. Deleo Chicks, Home Office, 920 Ohio, St. Louis 3, Mo.

TOP QUALITY—Cameron Leghorns or Colonial Tru-Lines Pullets \$33.00 hundred. Anderson Buff Sex-Link \$15.00 Straight Run—\$32.00 Pullets hundred. Started Pullets. Parks Poultry Farm, Cortland, N. Y. SK6-9310.

FREE! 10 CHICKS with every 100 ordered, no extra cost. Sensational values. Rocks, Reds, Wyandottes, Leghorns, Minorcas, 30 breeds. Low as \$8.95—100. Ducklings, turkeys, started chicks. Free catalog. Mt. Healthy Hatcheries, Mt. Healthy, Ohio.

MEADOW VIEW CHICKS—Rapp Linecross Leghorns, Harco Reds, Harco Sex-links, Lawton Buffs, Peterson Cornish Cross, Henry M. Fryer, Greenwich, N. Y.

BABY CHICK BARGAINS. White Rocks, Barred Rocks, White Leghorns. Reds, and heavy assorted. Free catalog. Surplus Chick Co., Milesburg 4, Pa.

GRADE A LEGHORN Pullets \$17.95. Heavy breeds \$3.95. Diamond Chicks, Franklinville, New Jersey.

SUNNYBROOK CHICKS are famous for vigor and laying ability. Favorites with thousands of poultrymen for over 40 years. They're bred to outlive and outlay the best in the business. White Leghorns, Harco Orchards, Black Sex Links, Rhode Island Reds. Hatching year round. For meat, you can't beat our Vantress-White Rock Cross. Write for catalog, down-to-earth prices. Sunnybrook Poultry Farms, A. Howard Fingar, Box 106, Hudson, New York.

MARSHALL KIMBERCHICKS. Today's Kimberchicks offer more for your chick dollar than ever before—at a time when you need every advantage. To earn extra profits in 1963 order Kimberchicks now by calling Marshall Brothers Hatchery, Ithaca, New York. AR2-8616.

CAPONS

STARTED SURGICAL capons, four to six weeks old and past the danger period. Grand champions Pennsylvania Farm Show in 1962 and again this year. Make extra profits with these big, white feathered birds that bring market premiums. Easy to raise, easy to feed. Direct delivery in our trucks over wide area. Write for folder. Sunnybrook Poultry Farms, Box 106, R.D. 2, Hudson, N. Y. Phone: TA 8-1611.

STARTED SURGICAL Capons. Meat type White Cross available now in large or small lots. Enjoy growing and eating this "Meat that's a treat". For free information and prices write Rhodes Starfed Capons, Alan Rhodes, Kingsley, Pennsylvania.

PULLETS

RAPP LINECROSS Leghorns—Baby chicks and started pullets usually available. North Country Poultry Farms, Inc., Mannsville, New York. Phone 465-4821.

RANGE GROWN HARCO Reds. Sex-links. Hatched Feb. 22nd, March 22nd. Specify age wanted. Quantities delivered. Lovell Gordon, Fultonville, New York.

THERE'S EXTRA QUALITY in Sunnybrook Started Pullets, reared on separate farms under finest conditions. Over 25 years of experience in the field. Two weeks of age up to ready-to-lay, all year 'round. Demler Leghorns, Harco Sex Links, Warren Sex-Sals, other famous strains. Write for prices. Added discounts for advance orders. Sunnybrook Poultry Farms, A. Howard Fingar, Box 106, Hudson, N. Y.

BANTAMS

BEAUTIFUL GOLDEN Seabright bantams. \$4 pair. Austin Carpenter, Sherburne, New York.

POULTRY

SWANS, GEESE, DUCKS, peacocks, pheasants, bantams. Stefani, 7 Myrtle Street, East Norwalk, Connecticut.

PHEASANTS

RINGNECK & ORNAMENTAL Pheasants, eggs, chicks, pullets Pullorum clean. Donatella's Pheasant Land, Wilmet Flat, N. H.

15,000 RINGNECK CHICKS hatching weekly. Mac Farlane Pheasant Farm, Janesville 13, Wis.

DUCKS

MAMMOTH PEKIN DUCKLINGS: breeders of Long Island's Famous White Pekins. Hatching Eggs—Breeding Stock. Inquire about prices. Long Island White Pekin Duck Co., Eastport, L. I., N. Y.

JANSEN STRAIN RHAKI Campbell ducklings, 12-\$4.00, 25-\$7.50. Howard Butler, Otego, N. Y.

HORSES

WANTED DRAFT & saddle horses. Jim Scott, Belfast, N. Y.

QUARTER HORSE COLTS and brood mares. Grade horses, any number, all prices, all types. Leslie Bowerman, Middleport, N. Y. Phone RE 5-3915.

PAIR RED ROAN MARES. Wt. 3000, age 8 yrs. Jim Scott, Belfast, N. Y.

SHEPHERDS: REGISTERED, grade-fillies, bred mare. Stephen Hawley, Batavia, New York.

STALLION SERVICE. Registered Belgian, aged 3. A. Andler, Lyons, N. Y. Phone WH 6-9488.

VETERINARY SUPPLIES

NEW! NOW TREAT Mastitis for less than 21¢ with new Uni-Power Infusion! Each dose contains: 100,000 units procaine penicillin, 100 mg. dihydrostreptomycin, 100 mg. neomycin 750 mg. sulfathiazole 750 mg. sulfamerazine, 5 mg. cobalt. Infuse directly into the infected quarter by withdrawing 10cc (1 dose) into a syringe with a needle, then replace needle with an infusion tube. Also ideal when drying off a cow—infuse 10cc of Uni-Power into each quarter—allow to remain until the cow freshens. "An ounce of prevention is worth pounds of milk." Recommended by leading veterinarians and dairy experts. Per 100cc bottle (10 doses) \$2.35. Six bottles \$2.25 each. Order 12 for \$25.00 and receive free syringe, needle and infusion tube. At your Anchor of New England dealers or order direct from Anchor Serum Company of New England, Dept. A-4, Topsfield, Mass. Write for free veterinary supply catalogue and health guide. Please note: As always, milk should be withheld from human consumption 72 hours after the last treatment.

FLOWERS & BULBS

CREeping PHLOX, 12 for \$1.00. Catalog free. Low direct prices. Planters Nursery, Dept. P. McMinnville, Tenn.

TWELVE AFRICAN violet leaves \$1.35. Marjorie Card, Edmeston, New York.

DAHLIAS—TWENTY different varieties. \$1.00. Twenty gladiolus \$1.00. Postpaid. George Mostert, Delhi, N. Y.

DAHLIAS—ALL DIFFERENT, labeled. Giants, Miniatures, or Pompons. 12 for \$3.50. Gladiolus Beautiful Mixture, some fragrant, and drag-ons \$4.50 per 100 large, \$2.50 medium, \$1.00 small. Minimum order \$3.00. Gladside, Northfield, Mass.

GLADIOLUS BULBS mixed color, 100 medium size \$3.00. State inspected. Prepaid. M. Meckler, Frankfort, N. Y.

GLADIOLUS BULBS, extra large, mixed, \$4.95—100. Postpaid. H. Gordon, Southold, New York.

IRIS, 25 DIFFERENT Giant Hybrids including red, pink, huge white, \$3.00. Holmberg's, Neodesha, Kansas.

LIVESTOCK AUCTIONS

FOR TOPS IN Livestock Marketing—Regular weekly sales and farm auctions: Empire Livestock Marketing Cooperative.

FARMS WANTED

YOUNG MARRIED MAN would like to lease farm fully equipped, or run farm on percentage basis. Box 511-DR American Agriculturist, Ithaca, New York.

FARMS FOR SALE

FOR SALE—Modern operating dairy farm, 120 tie-ups, 1100 gal. bulk tank. Feed enough for 150 head. Excellent milk market. Next to Holyoke, Mass. Inquire: Irving Bercoewitz, Bloomfield, Conn. or call Hartford CH 2-5521.

STROUT CATALOG—FREE! Spring edition. Thousands of new properties Coast-to-Coast. Farms, homes, recreation, business, retirement. World's Largest! Strout Realty, 50-R E. 42 St., N. Y. 17, N. Y.

FARMS—FINGER LAKES Area—all types and size farms. Retirement homes—hunting land. Lakeshore properties. H. M. Stocking, Broker, Dundee, New York.

FARMS AND COUNTRY properties in fifty towns. Largest list in New Hampshire. Free booklet. Arthur Symonds, Contoocook, N. H.

FOR SALE—200 ACRE dairy farm—modern house, black top road, city water, 100 acres tillage and 100 acres pasture. In good cultivation. Barns lie up 40 head. Room for expansion. New 400 gal. bulk tank. 4 miles from city. Best location in Maine. Price \$30,000. Contact owner Kenneth Ballard, R#5, Augusta, Maine. Phone Augusta, Maine, MA-25019.

336 ACRE DAIRY farm: 68 cattle (mixed herd). Power equipped machinery, 200 tillable. Dairyman's League market, modern buildings, improved pastures, abundance water, paved road. Price \$15,000. It's financed. Huffman Real Estate, Chautauqua, New York.

LESS \$57 ACRE! . . . for 325-acre dairy farm and lovely home. Owner says \$11,000.00 year income! 120 acres tillable, 100 acres pasture, 100 acres wooded, springs. Fine Colonial home, 11 rooms, bath, large porch, furnace, garage. #2 home needs repairs. Grade B barn 60x60, 38 ties, milk room, water piped, 3 silos, 30x60 storage barn. Handy location in village. \$18,500., only \$5,000. down. May be bought stocked. Strout Realty, RFD 1, Spencer, N. Y., Ph: 589-4824.

300 PRODUCTIVE acres, fine buildings, on highway, 60 cows \$65,000. 175 almost level acres gravel, small barn, modern home \$17,500. \$3,500 down. K. LeMieux, Water St., Arcade, New York.

99 ACRE STOCKED and equipped farm, on paved road, Bradford Co., Pa., near Nichols, N. Y., modern 8 room house, drive-through barn, other buildings, 2 tractors and all farm machinery, 25 head stock, \$27,000., terms arranged. W. W. Werts, Johnson City, N. Y.

250 ACRE DAIRY FARM, 58 tie-ups, Est. 300 M. timber, 2,000 bucket sugar bush with equipment, 2 tractors with good line machinery, 14 room house, Spring watered, 4 cows. Make good hunting estate, in the Catskill Mts. \$45,000. Standish Peck, Bensonville, N. Y.

FOR SALE: 10 ROOM house, barn, 1 1/2 acres land. Mrs. Cora M. Davenport, 43 Montgomery Ave., West Pittston, Penna.

ABANDONED. SAVOY—6 room-100 acres-2 ponds-\$10,500. Hinsdale-9 room-215 acres-2 brooks-\$25,000. Huntington-8 room-128 acres-\$18,900. Peru-10 room-120 acres-pond-\$16,700. Becket-8 room-300 acres-woodland-\$20,000. Becket-2 houses-500 acres-brook-\$42,000. Lenox-6 room-247 acres-river-brook-\$38,700. Four Going Dairy Farms from \$25,000 to \$55,000. Write or Phone Atlas Realty—24 Hamlin, Pittsfield, Mass.

120 ACRE FARM, stocked and equipped, average buildings, bath & furnace, machinery, hay and ensilage, 23 holsteins, two silos. Price complete, \$12,000. Buyer will need \$2,000 cash. Huffman Real Estate, Chautauqua, N. Y.

HIGHWAY GUERNSEY FARM, near Schenectady, Albany, 169 acres, brook. Buildings in nice setting. 9 room home. Cow barn, heifer barn, henhouse, garage. With 20 cows, 7 young, 2 tractors, complete equipment, \$27,500. May sell bare. Owner must enter hospital. Wimple, Realtor, Sloansville, N. Y. Free lists.

MORE THAN JUST a modern, 7,000 layer automated poultry plant, this has a 6 room ranch home to please any wife, 70 acres, southern New Hampshire, near large cities. Good established business. House has tile floors, fireplace, built-in range, dishwasher, other plus features. Must be seen. \$35,000. Box 514-CW, American Agriculturist, Ithaca, N. Y.

FOR SALE: 98 ACRES, one of the most beautiful spots in Central New York. On State Highway 26 overlooking 2 beautiful lakes. Modern home, drive through barn, continuous spring water, milk house like new, 500 capacity chicken house—good silo. One lot frontage on lake. Great opportunity for vegetable gardening. Have to be seen to be appreciated. Harold Tollerup, Eaton, New York.

UNIQUE DAIRY BARGAIN. 214-acre New York farm with \$35,000 insurance carried, yet priced at only \$39,500 including 40 milk cows, 2 calves, bull, (owner reports herd average of 14,000 lbs. milk with 500 lbs. butter fat in 305 days on D.H.I.A. test!). 3 milking machines, tractor, machinery! Good 8-room 5-bedroom residence, modern bath, full basement. Drive-thru, partly-new 40 x 130 barn, barn cleaner and bulk tank, poultry house, 160 acres cropland, 70 pasture reportedly handles head stock per acre, artesian well, pond, springs, barb fencing, \$17,000 income reported last year! On all-weather county road, all pick-up routes, 5 miles 2 towns. Successful retiring owner offers bargain which would be mighty hard to equal at \$39,500 complete, talk terms. New free illustrated Summer catalog, bargains coast to coast! United Farm Agency, 501-AA Fifth Ave., New York 17, N. Y. YUkon 6-1517. (Open 9 to 5 weekdays).

FOR SALE: 175 ACRES real Alfalfa land, fine barn, 68 head fine cattle, full line of machinery, 2 excellent 7 room houses. Saddle Creek James Vickerson, Salesman, East Springfield, N. Y.

FARMS FOR SALE

379 LEVEL TO ROLLING acres, 250 tillable, large barn; 110 productive acres, good 40 cow barn; 240 acres alfalfa soil, 60 cow barn, cleaner, 400 acres, 77 cow barn fully equipped or bare; all located in good dairy region. Pet- teys Agency, Cambridge, N. Y. Tel. 677-3687.

FARMS FOR RENT

50 ACRES, 45 tillable, 8 room house, barn, \$10.00 monthly, Vicinity Penn Yan. References: Box 511-VS American Agriculturist, Ithaca, New York.

CEDAR POSTS

CEDAR POSTS—all sizes. Pressure treated & cedar poles for barns & sheds. Rustic fencing. M. D. Snell & Son, Marcellus, N. Y. OR 9-3121. Closed Sunday.

NEW & USED EQUIPMENT

BARN CLEANERS, silo unloaders, engineered by Patz. New different bunk feeders, manure stackers, replacement chains for all make cleaners, low cost, easy terms. Nold Farm Supply, Rome, N. Y. Willard Howland, South- ampton, Mass.

MASSEY-FERGUSON 35 S. P. Combine for sale. Used about 100 hrs., like new. About \$5,000 worth of equipment with accessories. Will sell for \$3,000, and deliver up to 350 miles free of charge. Richard M. Sherman, Westport, N. Y. Phone: Yorktown 2-8661.

POST HOLE & WELL Diggers. A \$14.50 value only \$4. Send for bargain list. Contractors Sur- plus Co., Williamstown, Mass.

NEW—USED COCKSHUTT—Massey-Ferguson —Cobey farm machinery and parts service. Will trade and deliver. Someone needs your extra machinery let us sell it for you. Phone Lowellville \$5, or write to Ingersoll's Farm Sup- ply Co., Martinsburg, New York.

WANTED—ALLIS CHALMERS Roto Balers. Brice Cressy, Andover, Ohio.

10-TON TRUCK HOIST \$199.99—\$50 down. Can use agents. Dunbar, 2920 Pillsbury, Minne- apolis 8, Minnesota.

FOR SALE: SELF-PROPELLED I. H. 12' Combine model SPI27, Good condition. Conn. Valley Grist Mill, Suffield, Conn.

LOBEE TOMATO GRADER and waxer \$350. 1955-UD 525—International Diesel Irrigation pump on wheels—\$3500. Edward Gancarz, R.D. Box 84, Wrightstown, N. J.

FOR SALE: 301 BUCKEYE Farm Ditcher power drive front end, Werk-Brau three speed conveyor, automatic tile layer, ready to go to work, \$3850.00. Dick Brady, Fairview (Eric Co.) Pa. Phone GR-4-5811.

3 hp HOEING MACHINE. Hoes between plants, rows. Depth adjustable 0-6". Women operate easily. Self propelled. Month trial. Year warranty. Discount. Autohoe, West De Pere 9, Wisconsin.

FARMALL CUB 1959 Fast Hitch, price \$1250. Any usage repairs you make to this tractor during first year will be refunded in full. Frankly, I think it will last several years with- out repairs of any kind. Phil Gardiner Rambler & Machinery, Mullica Hill, N. J. Phone GR 8-6291. Others at lower prices with guarantees.

LAMINATED RAFTERS & Arches for barns and sheds. Douglas Fir bonded with completely waterproof glue. Popular sizes stocked. Extra heavy rafters — extra low prices. Box S-53, Unadilla Silo Co., Unadilla, N. Y.

FOR SALE: INTERNATIONAL 7 ft. reaper and binder. Excellent condition. Jasper N. Malloch, Route 2, Ballston Spa, New York.

SHEAR FINGERS Whitaker Model A-102 cut grass like magic \$1.35 each postpaid cash with order. State make and model of mower. Litera- ture available. Judson, Smithfield, R. 1.

FOR SALE: LUNDELL Flail chopper with windrow attachment and Seaman P.T.O. Ro- totiller 48" wide Maple Avenue Farms, Earl- ville, New York.

FOR SALE: ANDERSON Rotary Stone picker. Used very little. \$1200.00 Aberle Construction, RFD 2, Tolland, Conn.

BRAND NEW JAMES Volumatic silo unload- ers at dealers' cost or less. All complete with single phase 5 hp motors, overload switch, sus- pension and power cord. Farmers can buy as cheap as dealers. Take one or take all. F.O.B. Troy, Cash with order. 12'-8899; 14'-8912; 16'- 8921. Call, write or come. A. Henry Case, Box 303, Troy, Pa. 297-2312 or 297-3295, area 717.

30 RECONDITIONED MANURE Spreaders, 15 reconditioned balers, New Holland and Inter- national, 20 reconditioned forage harvesters New Holland and International. Very reason- able. John M. Saums, Rt. 69 & 202 Circle, Flemington, N. J.

FARMALL CUB 1957 with or without quick hitch. All following tools available: Roto tiller, one-row cultivator, several row cultivator, pick-up disc, pull behind, disc, mower, plow, seeder, fertilizer attachment. Inspect and dis- cuss cash bargain or terms at Phil Gardiner, Machinery Specialist, Mullica Hill, N. J. Write or visit. Phone GRidley 8-6291.

FORD TRACTORS—several—oldest to newest. Allis-Chalmers G with or without tools, any attachment available. Allis-Chalmers B with cultivator and plow, power lift. Farmall Super C, Farmall M. See us soon at Mullica Hill, N. J. Phil Gardiner Rambler Cars and Farm Machinery Dealer.

HAY & OATS

FIRST AND SECOND cutting alfalfa, mixed trefoil and other grades of choice hay de- livered by truckload. Weights and quality guar- anteed. Bates Russell, East Durham, N. Y. Phone Melrose, 4-2591 before 8 A.M. or after 5 P.M.

SHELLED NUTS & SPICES

PECANS, ENGLISH Walnuts, Black Walnuts, Brazils, Cashews, Almonds, Sassafras, Pepper, Cinnamon, Cloves \$1.25 Pound. Dried Mush- rooms \$3.00 lb. Peerless, 538AA Centralpark, Chicago 24.

AGENTS WANTED

\$30 OR MORE DAILY for route work. Man or woman. Full or part time. Write McNess, Freeport 27, Ill.

SIGNS

NO HUNTING SIGNS any material, lowest prices. Free sample—catalog: Signs, 51 Hamil- ton, Auburn, New York, Dept. G.

PLASTIC POSTED Land Signs. Durable, in- expensive, legal, free sample. Minuteman, Stanfordville, New York.

NO TRESPASSING SIGNS. Free samples, prices. Cassel, 65 Cottage, Middletown, N. Y.

HELP WANTED


LARGE DAIRY FARM needs experienced men for milking cows. Excellent housing and board- ing house on premises. Steady work, top wages and bonus for right men. Call Mr. Bernon, Garelick Bros. Farms, Inc., Franklin, Mass. 528-9000 days or Woonsocket, R. 1. POplar 9-7996 after 6:00 P.M. or Mr. Harvey Baskin at Franklin, Mass. 528-2276.

INDUSTRIOUS YOUNG man to work on dairy farm in Hudson Valley. Must be good milker. Married or single. Give experience and wage requirements. Box 514-WR, American Agricul- turist, Ithaca, New York.

WANTED: BOY to help on very small dairy farm. Will give wages, care as to a son. Mrs. Vernon Olin, Oriskany, New York.

WORKING HERDSMAN for Jersey herd of 70 head, milking 40. Must be experienced and re- liable. Modern farm in nice location. Good wages with benefits and good living conditions. Interview and references required. Reply to Armstrong Dairy, Inc., Locust Valley, Long Island, New York.

SILOS



GLUE LAMINATED RAFTERS AND ARCHES

Send for further information and prices. Box BR-33, Unadilla Silo Co., Unadilla, N. Y.

AUTOMATIC FEEDING saves time and hard work. Feeding mechanically with the Silo- matic Unloader 'Scru-Feed'n Bunk Conveyor and Pro-Met'r concentrate dispenser. Proven equipment guaranteed. Free pictures and plans. Dealer inquiries invited. Write Van Dusen & Company, Inc., Dept. A, Wayzata, Minn.

SILOS, SILO UNLOADERS, barn cleaners, Nold Farm Supply, Rome, N. Y.

A WOOD SILO is your best investment—wood means warmth, with little frozen ensilage . . . no acid riddled walls. For catalog write Box BS-53, Unadilla Silo Co., Unadilla, N. Y. Also manufacturers of glue-laminated arches and rafters for barns and sheds. Write for infor- mation.

BUSINESS OPPORTUNITIES

EARN MONEY SEWING our products. Excit- ing details free. Elizabeth Thompson, 21 High, Brookline 46, Massachusetts.

NEED CASH? EARN it raising fishworms! Write: Oakhaven-6, Cedar Hill, Texas.

40 ROOM BRICK HOTEL, fine condition, li- censed, good business, \$63,000. Garage, repair shop, brick building 8 room apartment above on highway. Invoice \$12,000. Owner will sacri- fice \$25,000. K. LeMieux, Realtor, Arcade, New York.

PROFITABLE OCCUPATIONS

INVESTIGATE AUTO ACCIDENTS. Pays up to \$750-\$1,000 a month. Investigators needed everywhere, part or full time. Car furnished; expenses paid. No selling. Meet interesting people. We train you spare time at home in weeks. Hold present job until ready to switch, or start own investigating business. Free infor- mation. No obligation Liberty School, Dept. C-1675, 1139 West Park, Libertyville, Illinois.

MARKETS FOR RAISERS of small stock. In- formation free. Marty Hartman, New City, New York.

PAINTING

BARNs PAINTED. New high pressure spray method cuts labor costs fifty percent. Paint is non-poisonous—never peels—lasts for years. No money down—5 years to pay—insured. For free estimate send card with directions to farm. Vaughan Co., East Avenue, Johnstown, New York.

AUTOMOTIVE

AMAZING CAR OFFERING: limited supply of 1962 Ford Galaxies, \$895. Mechanically A-1, top-quality ex-taxis, 6-cylinder, automatic 4-door sedans. Deliveries arranged anywhere; bonded driver, \$50 plus gas and oil. Ask about special free trip to New York. Write, phone Emkay Motor Sales, 1046 Bedford Avenue, Brooklyn, N. Y., (212) Ulster 7-0651. New York's largest cab fleet wholesalers.

REAL ESTATE WANTED

WANTED FARMS land, buildings, camps, radius 30 miles of Pittsfield, Mass. Write Atlas Realty, 24 Hamlin St., Pittsfield, Mass.

WANTED—VIRGIN Woodland with stream, 10 to 50 acres in Northeast U. S. Nicholas Char- szyn, 85-23 Parsons Blvd., Jamaica 32, New York.

WANTED: ACREAGE Gun Club Use, Putnam lower Dutchess. Swamp? Cheap? OK! Tempel- man, Hill St., Mahopac, N. Y.

WANTED—FARMS, Village, City and Coun- try homes, acreage, business opportunities, in- vestment property, for sale, in New York State and Pennsylvania. Write or phone, no obligation. W. W. Werts Realty, Johnson City, N. Y.

RABBITS

RAISE ANGORA, New Zealand Rabbits. Fish- worms on \$500 month plan. Free details. White's Rabbitry, Mt. Vernon, Ohio.

AUCTION SCHOOL

LEARN AUCTIONEERING. Free catalog. Missouri Auction School, 1330 Linwood, Kansas City 9-N33, Missouri.

PELLER'S AUCTIONEERING College. Free catalog, 225 South Schuyler, Kankakee, Illinois.

LEARN Auctioneering, term soon. Free cata- log. Reich Auction School, Mason City 11, Iowa.

AUCTION SCHOOL, Ft. Smith, Ark. Free catalog. Also Home Study Course.

SALESMEN WANTED

SENSATIONAL NEW longer-burning light bulb. Amazing free replacement guarantee — never again buy light bulbs. No competition. Multi-million dollar market yours alone. Make small fortune even spare time. Incredibly quick sales. Free sales kit, Merlite (Bulb Div.), 111 E. 32nd, Dept. C-74G, New York 16.

SALESMEN WANTED — Big commissions on Fly Sprays, Mineral Supplements, Udder Oint- ment etc. Full or part time. W. D. Carpenter Co., 111 Irving Ave., Syracuse 3, N. Y.

FARM AUCTIONS

FARM SOLD! COMPLETE dispersal—farm machinery and small items May 6th. Livestock consisting of 120 milkers, 25 young stock. May 7th. Remember these dates! Everything goes. J. W. Christman & Co. No 2, Fort Plain, New York.

WOOL

SEND WOOL to us for beautiful, warm blankets. Free literature. West Texas Woolen Mills, 413 Main, Eldorado, Texas.

AUCTIONEERS

AUCTIONEERS—Livestock and farm auctions. Complete auction and pedicree service avail- able. Harris Wilcox, Phone—Bergen 146, N. Y.

FOR TOPS IN Livestock Marketing—Regular weekly sales and farm auctions: Empire Live- stock Marketing Cooperative.

GARDEN SUPPLIES

PROTECT YOUR BERRY CROPS, vegetables from birds, animals with cheesecloth, 100 yards by 48", convenient 10 yard lengths, \$7.50 prepaid, 50% less mill price, Joseph Heim, 120F Eton Road, Thornwood, N. Y.

TARPAULINS

CANVAS TARPULINS—Direct from factory— reinforced eyelets, medium weight. Cut size— 7 ft. x 9 ft. \$5.67; 8 ft. x 12 ft. \$8.61; 12 ft. x 14 ft. \$15.12. Write for list of sizes and samples. Our 68th year. Eureka Tent & Awning Co., Binghamton, New York.

BUILDINGS

FARM BUILDINGS for all purposes, low cost, easy terms. Nold Farm Supply, Rome, N. Y.

MAPLE SYRUP

FANCY MAPLE SYRUP, butter, candies. Rea- sonable prices. Elliott Homestead, New Kings- ton, N. Y.

MAPLE PRODUCTS

MAPLE SAP EVAPORATOR with flues want- ed, 200 trees. Also plastic tubing, etc. Box 514-UV, American Agriculturist, Ithaca, New York.

STAMPS & COINS

OLD COINS BOUGHT. Illustrated catalog 25c. Hutchinson's, Box 6256, Philadelphia 36, Pa.

25 LARGE AMERICAN Commemoratives 10c. Accompanying approvals. Free perforation gauge. Linstamps, St. Catharines 111, Ontario.

103 DIVERSIFIED BRITISH Commonwealth 10c. Approvals included. Crown Stamps, Virgil 611, Ontario.

SEND TODAY-FOREIGN stamps at 1c to 5c each in approval books Waite, Mount Carmel, Connecticut.

ILLUSTRATED COIN Catalog-\$1.00 postpaid. American, Box 663, Kansas City 58, Missouri.

327 WORLDWIDE DIFFERENT 25c. Bargain approvals. Niagara Stamps, St. Catharines 211, Ontario.

BANKING

SAVE AND EARN 4% on your savings at New Jersey's largest savings bank. Bank by mail, we pay the postage both ways! The How- ard Savings Institution, P. O. Box 833, Newark 1, N. J. Accounts insured by Federal Deposit Insurance Corporation.

REAL ESTATE

REAL ESTATE SIGNS—bumper strips. Silk screen work. Rubber stamps. Folder. Cham- plain Industries, Hinesburg, Vermont.

FARMS — COUNTRY HOMES—Chenango and Madison Counties — central New York. Write Craine-Miner-Adams, Inc., Realtors, Sherburne, New York.

FOR SALE: 12.1 ACRES undeveloped, indus- trial zone 1—2 land, Southington, Conn. Owner, Mrs. A. Monroe.

20 ACRES; COUNTRY Route 51; 2500 feet Waterfront; 18 miles north of Syracuse, Ber- nard W. Clark, Pennellville, N. Y.

CASH CROP

CASH CROP—EASY to grow, improves soil, always a good market for cash — no acreage allotments. Grow Buckwheat, Sow June or early July. Harvest 25-40 bushels per acre in 10 weeks. Sell to us for cash. Buy seed locally or contact us. Birkett Mills, Penn Yan, N. Y. or Larowe Mills, Cohocton, N. Y.

PLANTS

STRAWBERRY PLANTS Virus free—State inspected. Seven varieties dug fresh to order. Special on orders received prior May 15th — 100 assorted varieties, our choice, \$2.50 post- paid. Free list and growing instructions. Facer Farm Market, Route 96, Phelps, N. Y.

SWEET POTATO PLANTS. Guaranteed All- golds, Bunch, Portoricos, Redyam, Goldrush, Centennial, Nancyhall, Yellowyam. Prompt shipments. 200-\$1.00; 500-\$1.75; 1,000— \$3.00. Sunshine Plant Co., Gleason, Tenn.

CERTIFIED STRAWBERRY Plants: Armore, Robinson, Catskill, Surecrop, Premier \$3.25 — 100. Superfection Everbearing \$4.25 — 100. Rasp. \$8.50 — 100 Postpaid. Perkins Berry Farm, RD #1, Box 230, Hudson Falls, N. Y.

CERTIFIED TOMATO, pepper, cabbage, onion, eggplant, broccoli, lettuce, cauliflower, beet, collard, and sweet potato plants. Field grown, healthy, vigorous plants. Write for free cata- logue-price list. Satisfaction guaranteed. Evans Plant Co., Dept. 5, Ty Ty, Georgia.

STRAWBERRY, RASPBERRIES, Blueberries, Blackberries. Latest and best including Mid- way, Frontenac, Fulton, Ozark Beauty Ever- bearing strawberries. Latham, Earlired, Dur- ham and September Everbearing raspberries. Write for free catalog describing 70 small fruit varieties. Walter K Morss & Son, Bradford, Mass.

THOMPSON'S VIGOROUS Strawberry Plants. Vermont grown from virus free stock. Catskill, Sparkle, and Howard 17 (Premier) 50-\$2.00; 100-\$3.50; 300-\$8.50; 500-\$12.00; 1,000-\$22.00, postpaid. Trimmed ready to set from healthy long rooted State inspected plants. Glenn Thompson, Johnson, Vermont.

UNLABELED, 4 HOUSE Plants, 3 African Violets, or 4 begonias. Or labeled 3 House Plants, 2 African Violets or 3 begonias, \$1.00 plus 25c postage each collection or any three for \$3.00. Lating, Warner, New Hampshire.

SWEET POTATO PLANTS. Nancy Hall, Early Ports, Allgold, Georgia Reds, Red Velvet, Bunch, 200-\$1.00; 500-\$1.75; 1000-\$3.00. Mil- lions fresh plants. Carefully packed. Quick shipment. Thrift Plant Farm, Gleason, Tennessee.

STRAWBERRY PLANTS, essentially virus free, Earldawn, Howard 17, Catskill Sparkle and Robinson 100-\$3.25; 500-\$11.00; 1000— \$21.00. Mary Washington asparagus roots, year old roots 100-\$3.25. Myatts rhubarb, large, 3- \$1.35. Horseradish 12-\$1.00. Latham and Sep- tember (Everbearing) raspberry plants 25- \$3.25; 100-\$10.00. Postpaid. Fred Drew (Nur- sery), Agawam, Mass.

AFTER JUNE 1ST, Vegetable plants, Cabbage, broccoli, Brussels Sprouts 100-\$1.25; 500- \$3.00; 1,000-\$4.50. Tomato cauliflower— 100- \$1.50; 500-\$3.75; 1,000-\$6.50. Peppers,egg plant — 100-\$2.00; 500-\$4.50; 1,000-\$7.50. Sweet pota- toes 200-\$2.25. Prepaid. Price list on request. Field Plant Farm, Sewell, New Jersey.

BERRY PLANTS, roots, Temple, Stelemaster, Catskill, Sparkle, Robinson, Vermillion, Em- pire and Fairfax. 25-\$1.15; 50-\$2.00; 100-\$3.25; 1000-\$19.00; Asparagus 25-\$2.00; 50-\$3.00; 100-\$4.25. Rhubarb, Victoria, 6- \$1.25; 12- \$2.00; 25-\$3.50. Horseradish 12-\$3.80; 25-\$1.50; 100-\$3.60 prepaid. Price list on request. Field Plant Farm, Sewell, New Jersey.

GOURD SEEDS

MAMMOTH GIANT GOURDS. Largest known. Round type. Specimens up to five feet cir- cumference. Twenty seeds. Planting cultural directions \$1.00 postpaid. Circular. Odom's, Pinola 8, Mississippi.

GOVERNMENT SURPLUS

BOLT AND NUT assortment N.F. and N.C. thread—Hexhead assorted sizes 1/4 to 3/4 to 6 inches long \$15.00 per 100 pounds. FOB, qual- ity guaranteed. Check with order. Rolling Equipment Co., 1125 Military Rd., Kenmore 17, New York.

GOVERNMENT SURPLUS Sales—"Depot Di- rectory Procedure" Bulletin- 50c. Industrial, Box 770 (P), Hoboken, New Jersey.

BEEs AND BEE SUPPLIES

BEEs increase seed and fruit yields. 100 page book with 175 pictures for 75c postpaid, ex- plains everything from starting to selling honey. Free factory catalog. Stingproof equipment saves you 25%. Walter T. Kelley Co., Clarkson, Kentucky.

PACKAGE BEEs. My northern-bred Caucasians are very gentle and productive. They will pro- duce your honey and pollinate your crops. Two pounds \$4.85; three pounds \$6.00, queen in- cluded. Parcel post \$1.25 per package. None COD, Conner Apiaries, Stockton, New Jersey.

PHOTOGRAPHIC SERVICE & SUPPLIES

GREGG COLOR FILM Service, Post Office Box 543, Little Falls, N. Y. Kodachrome Film de- veloped and printed, 8 exposure \$2.25; 12 ex- posure \$3.25; 35MM Kodachrome processed and mounted—20 exposure \$1.15; 36 exposure \$1.75. 8 MM movie processed \$1.15. Magazine \$1.00.

WANTED TO BUY

OLD ELECTRIC and Windup Toy Trains. Edward Wichmann, Lenox, Massachusetts.

PLAYER PIANO ROLLS. Wanted in playable condition. Any reasonable price for any quan- tity. M. Habernickel, 127 Central, Glen Rock, New Jersey.

COUNTRY HOMES FOR SALE

PLAINFIELD—6 ROOM—80 acres—brook \$5,500. East Windsor—9 room—3 acres—\$6,700. Windsor—6 room—85 acres—pond \$7,500. Washington—8 room—30 acres—pond—\$13,300. Middlefield—4 room—1 acre—scenic—\$8,800. Write or phone Atlas Realty, 24 Hamlin, Pitts- field, Mass.

FISHING

COLLAPSIBLE FARM-POND-Fish-Traps; ani- mal traps. Post-paid, Shawnee, 3934E Buena Vista, Dallas 4, Texas.

ADDITIONAL CLASSIFIED ADS

(Continued on Page 50)

Forage Harvest Countdown

(Continued from Page 33)

Table 1 demonstrates several points: (1) grasses can produce excellent yields when management and fertilization practices are favorable; (2) under the same fertilization, but with a cutting system less favorable to the grasses, the yields were less; (3) brome grass and orchardgrass behaved differently. Orchardgrass was hurt relatively little by a two-year cutting schedule that reduced the brome grass yield for 1961 by half. The brome grass was weakened and many plants died because they were cut when the plants were at a "weak point" in their growth cycle.

A Cornell study of timothy demonstrated a similar response. When the second cutting was taken at the jointing stage, the total yield for the season was reduced by about one-half ton, as compared to cutting systems where the second growth progressed to the bloom stage.

In most of the Northeast, forage legumes and grasses are best harvested on a two- or three-cutting schedule, but four cuttings are practical in the longer season areas. Mixtures with alfalfa as the major legume can easily be harvested three times—if the first harvest is completed in early June, the second cutting in mid-July, and the third cutting by late August or early September. Mixtures with birdsfoot trefoil are usually harvested only twice because trefoil is often grown on the wetter fields and is somewhat later in development.

Planning a forage harvest schedule should take into consideration the length of the growing season, the soil conditions in each field on the farm and the growth characteristics of the forage used. Alfalfa on well drained soils is ready for harvest 2 to 3 weeks after the average date of the last 32° F. temperature in the spring. Crops on wet soils begin growth later in the spring. The seeding mixtures adapted to the wetter soils are ready for harvest 1 to 3 weeks later than alfalfa on well drained soils.

There is a considerable range in first harvest dates and rates of regrowth of varieties of legumes and grasses recommended in the Northeast. For instance, DuPuits alfalfa and orchardgrass have very rapid regrowth rates and are ready for harvest in late May; Empire birdsfoot trefoil and Essex timothy have comparably slow regrowth rates and aren't ready for the cutting knives until late June. Farmers can choose a sequence of two or more seeding mixtures to fit the different soil conditions and to provide some spread in the cutting dates of forages. Usually the legume and grass in a seeding mixture should have similar growth rates.

Recommended management practices are much like recommended maximum speeds on highways; easy to disregard, often with no harm seeming to have been done. The recommendations are judgments based on research results and farmers' experience covering the past forty years. They are not ironclad guarantees of success, but are practical guidelines for developing forage management schedules.

WEATHER LORE

DO YOU KNOW how to recognize approaching hay-making weather in May or June? From Purdue University, James F. Newman, agricultural climatologist, and Lester H. Smith, Extension agronomist, give some suggestions that would apply equally well to northeastern states.

First comes a knowledge of weather conditions, something with which most farmers are very familiar. For example, if a man stands with his back to the wind, low pressure (storm centers) are to his left, and high pressure (fair weather) to his right. Furthermore, when a storm center passes north of him, the winds shift in a clockwise manner from southerly to westerly, and finally around to the northeast. If the storm center should pass to the south of him, the wind shift will be from an easterly to a more northerly or northwesterly direction.

So, if you are trying to decide when to plan your haying, watch these in order of importance: (1) the wind should shift in a clockwise manner from a southerly to a westerly or northwesterly direction; (2) the sky should clear rapidly, and the appearance of "fair weather clouds" should be evident; (3) Thermometer temperatures should drop rapidly; (4) Dew point or wet bulb temperatures should also drop rapidly; and (5) barometric pressure should rise steadily.

The scientists say that if these observations are followed, a farmer's chances of making hay without rain damage are approximately eight out of ten.

Dates to Remember

May 9 — 14th Annual New York Beef Cattlemen's Breeding Stock Sale, Caledonia, 7 p.m.

May 9-11 — Ayrshire Breeders Association National Meeting and Grand National Sale, Brandon, Vermont.

May 10 — New York Beef Cattlemen's Breeding Stock Sale, Alton, 1 p.m.

May 17-18 — New York State FFA Convention, Cato-Meridian Central School, Cato, New York.

May 18 — University of Connecticut, Sheep Day and University 4-H Day.

June 13-15 — Sixteenth Annual Delmarva Chicken Festival in Salisbury, Maryland.

June 30 — Dairy Goat Show sponsored by the Eastern New York Dairy Goat Club, Schaghticoke Fair Grounds, Schaghticoke, N. Y., beginning at 11 a.m.

July 10-11 — New York State Poultrymen's Get-Together, Cornell University, Ithaca.

July 12-13 — Maine Broiler Festival, Belfast City Park, Belfast.

MEAT PROMOTION

GOING INTO effect July 1, 1963, is an amendment to the Packers and Stockyards Act providing that packers, market agencies and dealers must have **written** authorization from owners of livestock before making deductions for meat promotion programs. Also, a packer, market agency or dealer may not make deductions for one promotional agency and refuse to make them for others. He can restrict the number of deductions to be made from any one consignment or purchase of livestock.

The regulation has been protested by the National Live Stock and Meat Board, the American National Cattlemen's Association, and other livestock industry organizations. One objection is the task of getting authorization from hundreds of thousands of livestock producers. In the past deductions have been made on each animal, but the shipper always has had the right to demand return of the payment.

The packers, market agencies and dealers must file an annual report of deductions made with the USDA, giving names of the organizations for which deductions were made and the amounts; also that they had written authorization. Deductions made under state laws are exempted except for certain reporting requirements.

NURSERY STOCK

COLORADO BLUE SPRUCE — 25 for \$3.75, postpaid, 10 to 14 inch. Heavy root systems. Free catalog and planting guide. Suncrest Nurseries, Box-J, Homer City, Pa.

CULTIVATED BLUEBERRY bushes, latest varieties, producing giant size berries, 4-3 year old bushes, \$6.50 postpaid, order early, supply limited. Brookside Blueberry Nursery, Pelham Rd., Amherst, Mass.

BLUEBERRIES bearing age \$1.15. Free catalog. Commonfields Nursery, Ipswich, Mass.

CULTIVATED BLUEBERRY Bushes, Six 18-30" \$5.95; ten 10-18" \$7.50. Postpaid. Morningbrook, Monson, Mass.

1,000 HORTICULTURAL items — tree seeds, baby evergreens seedlings, trees, shrubs, supplies, hardy mums, 1,500 seeds; Blue Spruce or Scotch Pine \$1.00. Catalog. Mellinger's, North Lima 42, Ohio.

COUNTRY BUSINESS

FOR SALE—GENERAL Store established 40 years, \$35,000 gross, no credit, no other stores in vicinity, 1 acre land garage and storage, 6 rooms and bath. All utilities, on main highway, licensed to sell patent medicines, beer, gas and general merchandise. Box 511-GR, American Agriculturist, Ithaca, New York.

ADDITIONAL CLASSIFIED ADS

(Continued from Page 49)

WOMEN'S INTEREST

BAKE NEW GREASELESS Doughnuts in kitchen. Sell stores. Free recipes. George, 3605 South 15th, Minneapolis 7, Minnesota.

QUILT PIECES: 5 pounds — \$2.00. Cottons; guaranteed Elizabeth Thompson, 21 High, Brookline 46, Massachusetts.

DECORATE WITH WALLPAPER. Free, 1963 catalog, 99 new washable patterns. Decorating suggestions and color schemes. Instructions for measuring and hanging. We pay postage Penn Wall Paper Mills Dept. O Bridgeton, New Jersey.

PLASTIC FREEZER Containers. Square pints \$9.50 per hundred; quarts, \$14.50 per hundred; Postpaid Sample pint, 25c. Oxboro Heath Co., Box 7097N, Minneapolis 11, Minnesota.

PERCALE QUILT PIECES: 1 1/4 lbs. \$1.00 Postpaid Ward Gould 92-A North, Medfield Mass.

DRESSES 24c; shoes 39c; men's suits \$195; trousers \$1.20. Better used clothing. Free catalog. Transworld, 164D, Christopher, Brooklyn 12, N. Y.

TEE SHIRTS — white—\$6.95 a dozen. E. Mathers, Stafford, New York.

CROCHETED EASTERN Star handkerchiefs \$1.00, crocheted baby sets \$3.00. Ada Yager, RD 3, Oneonta, New York.

RUG BRAIDERS. Complete supplies available; pre-cut and pre-tinted wool—36 standard colors. Braiders—needles—lacing and stand. Send 35c for color chart. Carten Redi-Braid P. O. Box 61, Devon, Conn. Dept. A

CHURCH GROUPS, CLUBS — raise funds quickly! Many new money-makers. Free catalog. The Briske Company Shaftsbury 5, VT.

CROCHETING, TATTLING, fans: Irish Linen handkerchiefs—white, perfect double row hemstitched, \$2.50 dozen; single hemstitched \$1.75, sample 25c, satisfaction guaranteed. Handkerchief Mfg. Co., 1225 Broadway, New York City, (room 802)

EIGHT SKIRT ZIPPERS, your color choice, \$1.00 postpaid. Colantuoni, West Campton, New Hampshire.

BEAUTIFUL NYLON HOSE. Save 50%. Seamless regular or mesh \$6 dozen pairs or with seams \$4 dozen pairs. Lovely beige shades Sheermills, 21871-X Cloverlawn, Oak Park Michigan.

TWILIGHT LAMP, stands 7 1/2" high. Ceramic base, rayon shade, both hand painted. \$3.95 complete. Money back guarantee. William Carpenter, Box 121, Clayton, N. Y.

SELLING OUT, QUILT pieces—rug strips — variety boxes. Choose one 10 pound box \$3.50 postpaid. Vesta, 373, Haines Falls, N. Y.

MISCELLANEOUS

STOP ITCHING Promotes healing of piles, psoriasis, eczema "Roberts Reliable Salve" effective since 1888. Satisfaction guaranteed. 3 oz. \$1.00 postpaid Roberts Pharmacy, Lisbon Falls, Maine.

CESSPOOLS, SEPTIC tanks, outhouses, clogged drains cleaned. Deodorized without digging and pumping. Solusolvent reduces contents, reclaims leachability. Old systems made to work like new. Free details Electric Sewer Cleaning Co., 264 Lincoln Street, Allston 31, Mass.

PARTS FOR STOVES, furnaces; coal, oil, gas, electric Empire Stove Co., 793 Broadway Albany New York

QUICK-JOIN FOR septic troubles, outdoor toilets. New, exclusive enzyme-bacterial formula digests solids, grease, paper, etc. Ends backups, odors, pumping, dipping. Harness to packets, \$2.50 postpaid, 12, \$1.50. Money back guaranteed! Ryler Co., Mardelia 20, Minn.

SONGPOEMS WANTED! Collaborate with professional songwriters equally. Share royalties. Songwriters Contact, 1619-G Broadway New York 19.

KNOW SOMEONE LONELY, ill, shut-in? Send \$1.00 for four, friendly, personal, monthly letters. Give age, birthday, hobbies of recipient. Box 514-RW, American Agriculturist, Ithaca, New York.

ATTIC AND BARN Junk worth money. Will buy almost anything pre 1910. Send brief descriptive list. Judah Weberman, 1 Grandview Ave. Monsey, New York. Phone 914 EL 6-3556.

CHUNK WOOD BURNING Furnaces. Daniels Mfg. Company, Hardwick, Vermont.

1000 QUALITY name and address labels—\$1.00. Ambassador Press, Box 1, Lynn Mass.

NYLON Aircraft Tires for farm use, 11-15-16 inch. Dealer inquiries invited. Write Kendler Supply Inc., Fayetteville, New York.

PARTS AND REPAIRS for all Vacuum Cleaners and Sewing Machines; give model No. and manufacturer or send sample to Snyder's Vacuum Cleaners and Sewing Machines 299 Maple Ave., Fulton N. Y.

WRITERS' BOOK manuscripts wanted. All subjects; fiction, nonfiction. Free brochures give tips on writing, publishing. Write Department 69-E, Exposition, 386 Park Avenue South, New York 16.

EVANGELICAL BOOKS. Free lists. Terminal Tracts, Box 125, Bayport, New York.

AFRAID OF LIGHTNING? Don't be—call us for free inspection. Survey and exact cost on complete lightning rod service. Morse-Collins, Inc., 148 Coddington Road, Ithaca, N. Y. Phone AR 2-8550.

EARTHWORMS

FREE PICTURE FOLDER "How to Make \$3,000 Yearly. Sparetime. Raising Earthworms!" Oakhaven-5, Cedar Hill, Texas.

FISHWORMS. \$5.00 Thousand. Postpaid. Free raising instructions. Price list. Wil-lo Enterprises, Corfu, N. Y.

A-I TECHNICIANS

ARTIFICIAL BREEDING Technicians. Are you interested in a position with the fastest growing A.I. Organization in the U. S.? Several choice locations are still available. Write to — Curtiss Breeding Service Inc., Danny Weaver, District Manager, Little York, N. Y.

Here's The Way To Curb A Rupture


Successful Truss That Anyone Can Use on Any Reducible Rupture, Large or Small

If you must wear a Truss for Rupture, don't miss this. A Post Card, with name and address, will get you **FREE** and without obligation, the complete modernized Collings Plan of Reducible Rupture Control. Now in daily use by thousands who say they never dreamed possible such secure, dependable and comfortable rupture protection. Safely blocks rupture opening, prevents escape without need of harsh, gouging pad pressure. Regardless of how long ruptured, size, occupation, or trusses you have worn. **TRY THIS**, and send your Post Card today to Capt. W. A. Collings, Inc., 5 Bond St., Adams N. Y. Dept. 717Y.

HIGHER HERD AVERAGE?

Get feeding, breeding and management recommendations on low-cost monthly progress reports. Ask your local DHIA supervisor for the "Go Electronic" folder or write:


NEW YORK DAIRY HERD IMPROVEMENT COOPERATIVE
Morrison Hall • Ithaca, N. Y.



Soften UDDERS! Heal TEATS!

The same antiseptic ointment in which Dr. Naylor Medicated Teat Dilators are packed. Designed to relieve soreness... congestion. You will like this modern, more effective medication for Tender Udders, Sore Teats. \$1 at drug and farm stores or write.

H. W. NAYLOR CO., MORRIS 4, N. Y.



Dr. Naylor's
UDDER
BALM

MOVING? Send new and old address to: American Agriculturist, Poughkeepsie, New York.



FAMOUS LAST WORDS BY POULTRYMEN

Anthony Sylstra, Extension Poultry Pathologist at the University of Massachusetts, has compiled a list of comments that have preceded the development of some mighty sick hens:

1. "Can't dig a hole now—I'll just throw these dead birds on the dump."

2. "My chicks didn't do too well last year—think I'll buy some cheap ones this year so they don't cost so much if I lose them."

3. "Heard where I can buy 500 pullets at a good price—they have a little cough which I can spray out of them — and they'll be as good as new."

4. "If I can get my birds to take enough of those new drugs, I can put in twice as many as usual."

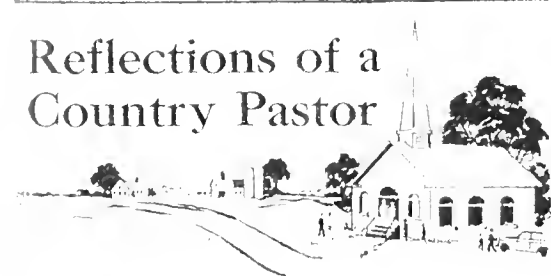
5. "Joe Jones is having wonderful luck with his broilers — only gives them a half foot per bird too—I've been wasting space."

6. "This vaccination business only weakens the birds—think I'll take a chance this year."

7. "I'm going to put my chicks right on the litter from the laying house—that way the weak ones will die off and I'll have good strong pullets this fall."

8. "You know, my birds still get coccidiosis even though I'm giving them the low level of that drug. Now if I just doubled the level, I wouldn't have any trouble."

Reflections of a Country Pastor



The Hue of Hope

IN A DRAMA critic's story about a well-known playwright occurs this phrase, "the hue of hope."

What is the color of hope? Is it golden like the sunset, or rosy like sunrise? It could be either. A sunset's color is a promise for tomorrow; sunrise prophesies the coming day.

"Hope that sends a shining ray far down the future's broadening way." To me that suggests "bright hope" as opposed to dark, drab, gray, gloomy. That which is bright illumines. Turn on the light and dark windows become luminous. A spot or floodlight attracts the eye to the objects "lighted up."

You discover new details when adequate light is thrown on what otherwise might be dim or obscure. Shadows are enticing to some; they often suggest mystery; sometimes they provide for covert actions. There is great contrast between dark and light, and Scripture teaches that "there is no fellowship of light with darkness."

The world's best hope, Jesus, made two basic statements: "I am the light of the world," and "Ye are the light of the world." This "light" reveals the true nature of life, and the promise of the life to come. He has given a glory-shine to Hope!

—Arthur Moody

9. "Those chicks have got something—lost ten again today. Some of them seem to have trouble breathing. Maybe if I give them a good salts flush and spray them with kerosene and turpentine it will open 'em up. Kill or cure I always say."

10. "I need some crates to cart those culls in. I'll just borrow some from Bill Smith."

11. "You know—I haven't been able to keep up with my customer's demand for chickens — I'm going to start buying some and dress them here."

12. "If I had a batch of broilers ready every week, I could easily do some business."

13. "Gotta use boots to walk through that house — wonder why those chickens can't keep it dry."

COLONY CAGES

AT HOMER, New York, poultryman Walter Spencer has been raising his birds in colony cages.

Six thousand birds were reared for 22 weeks on natural daylight, and when housed in December of 1961 the lighting was stepped up 20 minutes per week until they had 20 hours of light (natural plus artificial). This was kept constant for the remainder of the laying year.

Some of the birds (4,754) were placed in 3' x 4' cages at the rate of 20 birds per cage; the others were housed in the same size cages at the rate of 25 birds to the cage. Records were kept for a 361 day period, beginning the first day at 50 percent production.

Production from the birds housed 20 to the cage was 263 eggs per bird on a hen housed basis; those housed 25 to the cage laid 259 eggs per hen.

THEY STAY HIGH

CONTRARY to general belief, a cow that starts off as a high producer of milk not only stays high year after year, but lasts longer.

That's what Professor Alexander M. Meek of the Department of Animal Husbandry at Cornell has found out from a six year investigation. The study "showed very clearly that high producers continue to produce at a high level throughout their lifetime" and twice as many high-producing cows stay in the herd for six lactations.

16th letter of
the Greek alphabet
and NYABC
have one thing
in common



For NYABC's 225 trained and experienced technicians PI means Personal Interest in your herd breeding program.

With NYABC you get the top AI Proved Sires for best results in your herd — more production — more profit, and an efficient reliable service at low-cost —PLUS PI. Put the Greek alphabet's . . . and NYABC's . . . PI to work for you. Next time, call your NYABC technician.



YOUR HEADQUARTERS FOR SUPERIOR AI PROVED SIRES



ED EASTMAN'S PAGE



What Varieties of Apples Shall I Plant?

RECENTLY I asked Professor M. B. Hoffman, head of the Pomology Department at Cornell University, the following question:

"What would you suggest in the way of varieties for New York State, and for the apple growers of the New England states?"

In reply, Prof. Hoffman gave me what I think is the best answer to this question that I have seen in years. Here it is:

"In western New York, 60 percent or more of the annual apple crop goes to processing plants as it is harvested. In eastern New York and New England, practically all of the annual apple crop is stored and later packed for the fresh fruit trade. Because of this situation, the suggested variety list for western New York would differ from a list for eastern New York and New England.

"For western New York the following list might be considered: McIntosh, Cortland, Twenty Ounce*, Wayne**, Spartan, Delicious, Rhode Island Greening*, Golden Delicious**, Idared**, Rome Beauty**.

"For eastern New York (Hudson Valley) and New England, where the crop is packed out of storage and sold to the fresh fruit market, we must consider the best varieties for fresh consumption as well as a desirable proportion of each. The crop is sold to a relatively few buyers who represent large chains. In today's competitive markets, high color is desirable, but **fruit condition is essential**. For this reason, each variety must be harvested at optimum maturity for best storage and best condition in trade channels. Too much acreage of any one variety in a single operation is not a good situation.

"On Friday, March 15, 1963, here at Cornell we held a one day conference for 22 Hudson Valley apple growers on the general subject of marketing their crop. Two hours of this conference were devoted to a panel on varieties. The conclusions represented the combined opinions of the 22 growers, 2 chain store buyers, and several professional pomologists. Here is what was suggested for the successful Hudson Valley orchard during the decade of the 1970's:

McIntosh	30 percent
Cortland	5
Jonathan	5
Spartan	5
Red Delicious	25
Golden Delicious	15
Idared	10
Rome Beauty	5
Total	100 percent

*—Processing

**—Dual Purpose.

"At present, McIntosh represents 42 percent of the total bearing trees in that area, and 52 percent of the total annual production. Obviously, this group felt the need of some change in the varietal composition of present plantings.

The 22 growers present produced 880,000 bushels of apples in 1962—an average of 40,000 per grower. They are a good cross section of our growers, and are in position to recognize trends.

"Certainly any grower planting red varieties such as McIntosh, Jonathan or Delicious should choose one of the highly colored strains.

"I would not want to imply that this list would hold for all of eastern New York and all of New England. Areas such as the Champlain Valley, Vermont, New Hampshire, and Maine have climates that are ideal for McIntosh, and a growing season that is either too short or winters that are too cold for some of the varieties mentioned. The commercial varieties for these areas are limited mainly to McIntosh, with adequate pollenizers such as Cortland and Delicious.

"There are a few summer apples grown in all of these areas. These early varieties will be profitable so long as no more are produced than can be immediately disposed of in local markets or roadside channels.

"The New York apple industry has always been based on varieties for the storage season, i.e., those maturing from the McIntosh season in mid-September up to late October and early November. It will probably remain this way.

"Within the next 10 years, all of our apple crop marketed as fresh fruit up to and including the Christmas holidays will come from carefully-operated cold storages. After early January it will likely come from CA (controlled atmosphere) storage. This is the direction in which we appear to be moving, and such procedures should supply the consumer with fresh apples of good condition over a period of 8 to 10 months. It is a program for the present day grower who must sell his entire crop at a profit without the great wastage of former years."

TURNING OUT THE COWS

The farmer's year is marked by certain outstanding events — perhaps more in the past than now.

For example, when I was a boy it was always a big occasion when we tapped the maple grove marking the arrival of spring. It was exciting also when we started the mowing machine, although I got darn sick of it before the haying was done. Still another big event was when the threshing gang came with their traction engine up the road hauling

the water tank and the thresher back of it.

But to me, both as boy and man, the nicest event of the whole farm year was when we turned the cows out to pasture for the first time in the spring. I will never forget my feeling of peace and contentment as I leaned on the pasture bars in the soft May sunshine to watch the cows eagerly crop the new grass.

Gone for the cows was the long winter stable prison and for us the worry over whether or not the hay would last to pasture or whether there would be money enough to pay big grain bills. God and His beautiful green grass at last had taken over for at least a spell. How fragrant and foamy was that grass milk that streamed into the pails when, at the close of day, the cows came home for milking!

Harry Grattidge, who rose from cabin boy to be the captain of the world's largest and greatest passenger steamships, the Queen Mary and the Queen Elizabeth—said in his book, *CAPTAIN OF THE QUEENS*, that after a long sea voyage, the most beautiful sight in the world was the bright green of growing grass—God's great green carpet.

So persistent is grass that no matter how man may rake up the earth's surface and destroy it, leave it alone for a short time and it comes back to cover the world with its soft green mantle.

AMEN!

Last June, I drove to a nearby farm where acres of strawberries are grown, and where you can get them at a reduced price if you pick your own. With me was a 12-year-old granddaughter.

Posted on the field were signs warning that children would not be permitted to pick berries because of the child labor laws.

That made me darn good and mad, because I am sure that one of the best things that can happen to a girl or boy is to know what hard work is, and most children of today are cheated out of this most valuable experience because the dogooders have obtained laws preventing young people from working.

Speaking recently at a conference

of educators, Prof. Willard E. Goslin of Nashville's George Peabody College, said;

"We are possibly the first people in history with little or no economic use for our children. Our technological advances have rendered them unneeded, if not useless. We have made matters worse by moving to town—nearly 90 percent of us—where we have automated our kitchens and heating systems and put motors on our lawnmowers."

Goslin said that for 300 years an American youth carried in the wood at the age of 6, learned to plow at 12, and became a full-fledged farm hand at 16.

Goslin called for a nationwide attack on the problem. He suggested that parents ought to try to find more work opportunities for their children instead of sheltering them; and that business and labor should accept their full share of responsibility for furnishing work opportunities for youth.

To Goslin's statement, I add one word—"Amen!"

EASTMAN'S CHESTNUT

Pat Murray came to America fresh from the old sod. About the first thing he did after landing in New York City was to find a pocketbook containing \$340. That certainly confirmed his dreams about how everybody in America is rich.

Then Pat got on a streetcar. After riding a few blocks, the conductor yelled, "Pearl", and a woman got up and left the car. At another block, the conductor called out "Elizabeth," and another woman got off the car.

Marvelous, thought Pat; in this wonderful country the conductors even know the names of the people.

At the next stop, the conductor called, "Murray," and Pat climbed off the streetcar. While standing wondering where he was going next, a lady said to him:

"Is this Murray?"

"Shur'n it is that," said Pat, beaming with enthusiasm.

"I'm looking for 340," said the lady. Whereupon, Pat, almost overwhelmed, pulled the \$340 from his pocket and handed it to her!



There is nothing more beautiful in our Northeast farm country than a well kept apple orchard in bloom, unless it is that same orchard hanging full of perfect apples.



SERVICE BUREAU

CLEARING HOUSE

Every now and then a farmer contacts us and wants to know if we can put him in touch with a young man who might want to work for a time as a hired man, with the idea of going into partnership and perhaps eventual ownership. Similarly some young men contact us about opportunities to enter this sort of an arrangement.

If you are in either category mentioned above, we'll be glad to add your name to the list and let you know of possibilities.

We're glad to serve as a clearing house for getting folks together, but wouldn't want to be responsible for investigation of the reliability of either party.

A BOUQUET

"Thanks to your efforts on our behalf, we have made a very satisfactory arrangement with the company concerning the chain saw matter. Parts are not available, but our money was refunded, so we can purchase another saw.

"We are very pleased with the way this was taken care of and you can be sure that we will always be grateful to AMERICAN AGRICULTURIST for its help to us. Thanks so much."

—Mrs. A.R.L., Hope Valley, R. I.

FOUND GUILTY

Factory Supply Company and its subsidiary companies, Buy-Rite Buyers Club, American Wholesalers Service, Inc., and Standard Distributors, Inc. were indicted some months ago for use of the mail to defraud. They were tried before a Federal court in Burlington, Vermont, and were found guilty. According to Postal Inspectors, over 3½ million letters containing false and fraudulent representations had been sent through the mails, and there were 3 complaints for every 4 orders that were sent to the clubs.

On January 29 these corporations filed bankruptcy papers in the Federal Court at Newark, N. J. We would suggest that anyone having a claim against one of these companies file it with the U. S. District Court, Newark 2, N. J., as soon as possible.

CAN YOU HELP?

Mrs. Alton Parker, Liberty, Penna. would like to buy a deck of Gaiel playing cards.

* * *

Mr. Donald F. Jenkins, New Bedford Rd., Rochester, Mass., is trying to locate a copy of the book, "Two Boys in Beaverland," by Maj. C. Radelyffe Dugmore.

* * *

If you have any old greeting card postcards, which were used in the 1800's until perhaps 1920, won't you write Mrs. Florence Silverman, Box 25, Mongaup Valley, N. Y. She collects them and would like to hear from you.

* * *

Mrs. John B. Norton, Angelica, N. Y. would like to get a copy of "Mother Shipton's Prophecy," which ends: "And the world to an end shall come in eighteen hundred sixty-one."

SERVICE BUREAU CLAIMS RECENTLY SETTLED

NEW YORK	
Mr. Frank Behling, Narrowsburg (settlement on bad check)	\$106.60
Mr. Leland Glover, Avoca (ins. premium refund)	80.10
Mrs. Walter Shiells, Monticello (ins. settlement)	10.00
Mr. Ernest E. Squires, Sr., Oxford (refund on vacuum)	5.00
Mr. Bennie G. Brown, W. Winfield (settlement on bad check)	66.63
Mrs. Anna Barnes, Ains (refund on material)	3.00
Mrs. Alyce E. Cate, Plattsburgh (refund on subscription)	2.00
Mr. Ralph E. Donley, Naples (ins. premium refund)	53.30
PENNSYLVANIA	
Mr. Norman S. Lewis, Pittston (refund on parts)	29.95
Mrs. Hazel Alger, Lawrenceville (refund on clothes)	15.00
MAINE	
Miss Mildred Smith, Bucksport (refund on coat)	30.21

Mrs. Margaret Payne, Edwards, N. Y. would like the following poems: Paper Boy, El Paso, and Old Shep; also the words to the song, Old Skimmer.

* * *

Mrs. Marie K. Dederick, Lakeshore Rd., R.D. 1, Clay, N. Y. is interested in obtaining some old-fashioned cookie cutters.

* * *

If you have a copy of the poem about "The Old Fashioned Night-shirt," will you please send it to Mrs. Gilbert Collet, 7177 Taft Rd., R. D. 1, E. Syracuse, N. Y.

* * *

Mrs. Laveda Fowler of Canaan, Maine, would like the words to the song, "Just as the Sun Went Down."

* * *

Mrs. Victor B. Barnum, 1 Willard Ave., Phelps, N. Y., would like to borrow or buy a copy of a children's story, "Down the Snow Stairs," about a little girl's dream of her snowman.

ADDRESSES WANTED

Do you know the whereabouts of—
Mr. and Mrs. Robert King, formerly of Gadsden, Alabama.

* * *

Earl E. Dickey, last known address, Milo, Maine, (1954). His daughter wishes to locate him.

* * *

Harry Veinot, Born in Nova Scotia 75-80 years ago; last seen in vicinity of Greenfield, Mass. His brother Kenneth would like to get in touch with him.

* * *

Any descendants of W. H. Dennis, architect, Minneapolis, Minn. In 1902 he was a resident at the Soldiers' Home.

* * *

Daniel Sullivan, who was once stationed at Fort Riley, Kansas, and whose last known address was No. Plainfield, N. J., c/o Chas. Goodyear.

* * *

Arthur Edward Anthony, who was born in Pontiac, Mich. in 1911. He lived in Buffalo, N. Y. and his last known address was USN Air Base, Willow Grove, Pa.

* * *

Any descendants of Job Thornton, who lived in Pawling, Dutchess Co., then Otsego Co., and Town of West-ern, Oneida Co., in the early 1800's.

* * *

Any descendants of Anson Tyrus Prouty and Mary Agnes Thompson, who lived in Cambridge, N. Y.

Hired Man Gets \$424 Farm Owner Draws \$1070



3 TIMES IN ONE YEAR

Farm owner Herbert Titus of Cato, N. Y. was severely burned by fire—he drew \$1000.00. Then five months later when he caught and crushed his finger in an auger he drew \$70.00.

Now, Mr. Titus looks on as North American agent Eston Reed hands hired man Duncan Tuggey \$424.14 for injuries when crushed by a cow.

This is how Mr. Titus feels about North American protection:

"Having drawn twice myself I know the value of North American policies, that's why I carry them on all my family. All my hired men carry it too. For the cost you can't beat it. They pay claims promptly with no fuss or bother."

Herbert Titus

OTHER BENEFITS PAID

NEW YORK	
Harry Stanbro, Black Creek, N. Y. (Hit by hay bale—wound knee)	\$699.06
Gladys Lincoln, East Otto, N. Y. (Auto—multiple lacerations and bruises)	506.70
Ford Barrett, Martville, N. Y. (Hit by barn door—wound face and back)	757.17
Mead Newell, Sherman, N. Y. (Knocked down by cow—wound neck)	762.00
Viola Shopp, Van Etten, N. Y. (Fell from tractor—head & internal injuries)	461.75
Myron Ashline, Plattsburgh, N. Y. (Punctured by duck's claw—wound hand with infection)	141.28
Floyd Slocum, Marathon, N. Y. (Hit by car—broke arm & leg, injured shoulder, hip)	1130.00
Dorothy Halstead, Delhi, N. Y. (Auto accident—wound teeth, jaw, back)	678.00
Ellen Hudson, Keene Valley, N. Y. (Slipped on ice—fractured wrist)	159.99
Emerson Gonyea, Dickinson Center, N. Y. (Fell off wagon—wound elbow)	170.00
Clifford Bailey, Northville, N. Y. (Auto accident—wound back)	814.25
Andrew Michel, LeRoy, N. Y. (Fell from hay mow—fractured elbow)	657.14
George Miceineik, Mohawk, N. Y. (Kicked by cow—wound back)	162.86
Margaret Wilson, Chaumont, N. Y. (Auto accident—wound head, nose)	152.43
Edwin Stalder, Evans Mills, N. Y. (Fell down stairs—wound hip)	377.02
Richard Tabolt, Lowville, N. Y. (Stepped in hole—wound knee, wrist)	864.39
Fay Barratt, Jr., Mt. Morris, N. Y. (Foot slipped in blower—cut & fractured foot)	254.28
Mabel Bauder, Ft. Plain, N. Y. (Caught foot in lawn mower—deep cut)	604.49
Lyman Eaton, Vernon Center, N. Y. (Slipped fixing silo—wound hand and wrist)	360.71
Samuel Pitcher, Warners, N. Y. (Auto accident—concussion, cut face, injured leg and wrist)	1393.54
Raymond Ketcham, Gorham, N. Y. (Caught in thrasher—wound finger)	411.23
PENNSYLVANIA	
Marion Rice, Albion, N. Y. (Slipped on ring—wound chest and face)	175.04
William Harper, Ogdensburg, N. Y. (Crushing tractor—badly fractured arm)	693.95
Florence Beldock, Ogdensburg, N. Y. (Fell—fractured bone in foot)	158.11
Joseph Risse, Middleburg, N. Y. (Auto accident—wound forehead, hip, back)	762.28
Paul Simpson, Savona, N. Y. (Crushed by cow—compound fracture leg)	1350.00
Carl Niles, Berkshire, N. Y. (Fell from ladder—wound ankle, cuts & bruises)	267.28
Randall Crispell, Slaterville Springs, N. Y. (Fell getting on school bus—broken tooth)	100.00
Merritt Reynolds, Sr., Smith's Basin, N. Y. (Auto accident—concussion, fractured ribs, cuts)	514.21
Duane Seager, North Rose, N. Y. (Slipped loading cabbage—wound back)	1101.08
Martin Glor, Attica, N. Y. (Thrown from tractor—wound leg)	420.00
Hyman Smith, Penn Yan, N. Y. (Crushed finger—abrasions with infection)	159.28
Glenn Foster, Smyrna, N. Y. (Auto accident—wound back, shoulder, head)	619.85
NEW JERSEY	
Miles King, Troy, Pa. (Kicked by cow—fractured ribs)	121.43
Leona Aldrich, Millerton, Pa. (Hit by car—fractured arm)	238.25
Edna Andracki, Lake Ariel, Pa. (Auto accident—wound head, arm, concussion)	461.78
Percy Conklin, Milanville, Pa. (Cow kicked hand—wound bone)	109.28

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Your land! You work it . . . you put your muscle and the power of the Big Orange Tractor against it. And it produces. But it takes power—big as the land itself. Team up . . . Allis-Chalmers makes a size right as rain for your land. Maybe you need the most practical all around size . . . the new D-15, Series II, with its generous boost in horsepower. Or perhaps the dependable 4-plow D-17 fits your land better. And for bigger land farmers, it's the big 5-plow D-19, pictured here. Exclusive TRACTION BOOSTER SYSTEM and a hand clutch are yours too in these tractors. You'll get results . . . so why not team up . . . a Big Orange Tractor and you.

from the
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JUNE 1963

American Agriculturist

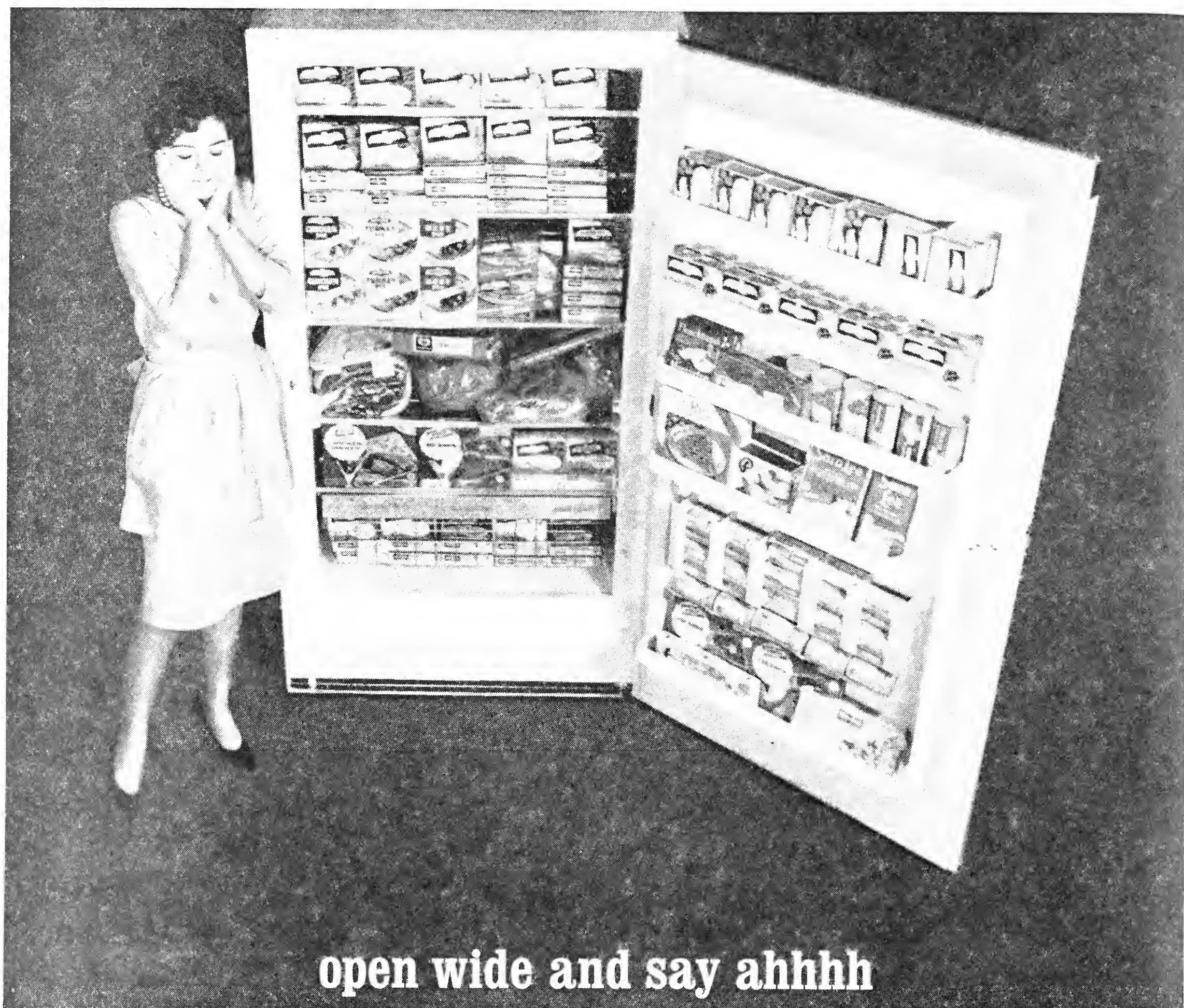


WHAT'S UP? The sales of milk and other dairy products, of course! The scene above is symbolic of the efforts made by farmers, the American Dairy Association, farm cooperatives, milk handlers, and many others to promote the consumption of milk, especially during June Dairy Month. Mrs. Ruby Scalia, one of the tellers at the Tompkins County Trust Company in Ithaca, New York, accepts for deposit the milk check of dairyman Richard Perry, whose farm is near the same city. At milking time, by the way, Dick has 46 contributors to that milk check.

Tellers in this bank will wear these hats during part of June to remind bank customers that some of the finest food known to man comes from the dairy farms of the land. It's part of a nationwide program to expand the dairy market. Seven million dollars will be spent by ADA on dairy promotion in 1963, up two million dollars from 1962. Big money? Sure—but the stakes are high.

How about you — have ANOTHER glass of milk?

A CONSTRUCTIVE FORCE IN NORTHEASTERN AGRICULTURE



open wide and say ahhhh

(A typical reaction to New GLF Unico Freezers and Prices)

A breathtaking galaxy of new GLF Unico Freezers opens up a wide world of good living for economy-minded homemakers.

You will find 14 models to choose from. Upright freezers. Chest freezers. Combination refrigerators and freezers. All priced within easy reach of any budget.*

Uprights come in six sizes and prices, ranging from 9 cu. ft. to big and roomy 30 cu. ft. models with a storage capacity of 1,050 pounds. Glide-out baskets and book-shelf doors put food at your fingertips.

Chests are available in four sizes, extending from 13 cu. ft. to our biggest chest freezer, a 21 cu. ft. model with 740 pounds of storage capacity. Lift-out baskets and dividers provide greater storage convenience.

Combinations come in four sizes and prices and are two individual appliances in one cabinet... A completely frost-free refrigerator and a true-zero freezer. Futuristic features save you time and steps at dinner-time, all of the time.

Many smart housewives help pay for their freezers with the money they save by

buying and storing food in large quantities. This way, you put more food in your shopping basket and on the family menu—at the same price you are now paying for smaller supplies. You save trips to the store too.

And you'll save maintenance costs because GLF freezers (any size) are so good we guarantee the cabinet and all components for one year and the compressor for a full five years. That's not all. GLF gives a free warranty on every freezer against food spoilage for five years up to a maximum of \$250.

Take a good look at our freezers inside your nearby GLF Service Agency... or ask your neighbor who owns one. A recent impartial survey revealed that more present owners of GLF freezers would repeat their purchase than owners of three other leading brands. Discover the new world of good living today. Cooperative GLF Exchange, Inc., Ithaca, N.Y.



QUALITY CONSUMER PRODUCTS

BUDGET BARGAINS

UPRIGHT FREEZER

21 cu. ft.

JUNE ONLY

\$249.95

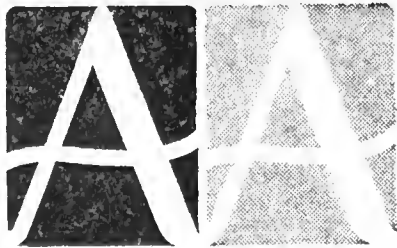
COMBINATION

15 cu. ft.

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American Agriculturist

A CONSTRUCTIVE FORCE IN NORTHEASTERN AGRICULTURE

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MEET

Harold Hawley, who writes regularly for American Agriculturist, farms 750 acres in Cayuga County near Weedsport, New York. He combines a down-to-earth knowledge of farming with an ability to analyze—an ability developed in the process of earning a B.S. degree from Cornell and advanced degrees from Purdue. Named in 1960 by the Ford Motor Company as one of the nation's twelve top farmers, Harold finds time amidst the demands of operating a farm to take part in many community activities. You will enjoy his comments on farming and living; in this issue they appear on page 8.



If your roofs look like this . . .



And you want them to stay like this . . .

You just won't find a better buy than
Galvanized Steel Roofing
by **BETHLEHEM**



Steel for Strength





EDITORIALS

BY GORDON CONKLIN



BUT NOT YET

EVER hear of a man named Saint Augustine? He was the fellow who lived many centuries ago and who, after he became a Christian and saw living in a new light, wrote a book about the transformation that had taken place in his thinking. In it he revealed a great deal about human nature.

Augustine had a lot of wild oats to sow in his younger days and he pursued this task with great diligence. After all, "everyone was doing it" in his society and he couldn't see bucking the trend and missing all the fun. Once in a while, though, an uneasiness gnawed at his mind, so he would attempt to pray, "O Lord, make me pure."

But then a vision of his latest heart throb (clad in a Roman bikini) would flash before his eyes and he'd hastily add the words . . . "but not yet."

I have heard several speakers lately whose words remind me just a bit of Saint Augustine. In essence, here's what they said, "Sure, we may disagree with the direction our society is going, particularly with the fact that more and more people are turning over their responsibilities to government. Whether it's tagged socialism, the welfare state, or any other label, is beside the point. If that's the direction the majority wants to go, why should we butt our heads against a stone wall? Shouldn't we get aboard the band wagon and take advantage of the situation instead of slipping behind the parade?"

Make me pure and stalwart, O Lord, . . . but not yet. Not until I have gotten mine and am too old to give a damn any more. Help me preserve the freedoms for which my ancestors shed their blood . . . but not if it means accepting a weekly wage below that of the electrical workers' union!

Help me see the values of the incentives of a competitive society where each person's income is determined by ability and willingness to work. . . . but for goodness sake not until I have achieved parity, and legislation has been passed that guarantees equal incomes for all!

Thou knowest, O Lord, that I long to bequeath my children a land of opportunity without the necessity to purchase the right to produce, or obtain permission to enter an occupation. . . . but these things are certainly essential for the present emergency if my own cup is to overflow.

Guard me from the temptation in the future to cut open the golden goose of our free enterprise system for a few golden eggs . . . but trouble me not about my present carving activities. I pray for the inner stamina whereby I may stand firm for what is right, regardless of its popularity at the moment. . . . but not until my net worth is adequate for financial independence, and especially not until I have qualified for benefits from programs financed at public expense. Thou art so remote, and sometimes heedless to my pleas, but my Great White Uncle in Washington is ever eager to return, to all those who cooperate, a portion of that which he has taxed from them.

The record of humanity, including the Book

especially inspired by Thee, tells us that the upward thrust of mankind has been led by men often unpopular with the crowd. Thy prophets and Thy Son called upon us to seek truth rather than what is merely expedient—called us to dig deep beneath the surface of living, seeking to understand and to make a part of ourselves those things of lasting value. Grant me the courage to risk the derision of my neighbors in the fight for what is of lasting value, even if it costs me to do so. . . . but not yet.

EVERYBODY TALKS ABOUT IT

BUT nobody does anything about it — so went Mark Twain's famous comment on the weather.

On any given day, the folks I meet will have very different reactions to the weather. I'm sorry to report that many of these reactions are negative—it's too hot, too cold, too dry, too wet, too nice to last. Listening, I can only breathe a fervent prayer of thanks that Congress has not yet seen fit to recognize the weather as a problem needing legislation.

It rained yesterday, cancelling our family picnic plans and a lawn mowing expedition, but the rain refreshed the garden wonderfully. Bitter cold and burning drought kill many insect pests, and long rainy periods insure our water supplies. Farmers know that "you can hear the corn grow" on those steaming, stifling nights in July when sleep is drowned in sweat.

We complain because our little designs are frustrated, but all types of weather are essential to the complex machinery of nature. I remember talking to a farmer once who had seen 70 years of rain and sun, storm and calm. Putting one foot on a bottom strand of fence wire, he gazed across his fertile fields and said, "Weather is sort of like people—it takes all kinds to make a world. The trick is to see the good points in each different kind."

"GET A HORSE"

ONE OF MY EARLIEST memories is that of helping out with haying—by swatting green-eyed horse flies on our faithful horses. Still so small that I couldn't handle a pitchfork, I was assigned the job of trying to protect our source of power from the onslaught of a never ending stream of those blood-ravenous critters. I learned early how to avoid being in the wrong place at the wrong time in this job: they quickly learned that I was trying to help them.

My dad and I held a deep affection for most of the horses that over the years worked with us at field work, sugaring, fence building, log skidding, and all the rest. Dad sometimes wrote poetry; two verses of one poem went like this:

The tree I planted by the road
The friend I helped to pack his load;

My hard-worked horse's trusting eye—
They must be me when I shall die.

Horses in our Northeast, though, are now mostly the riding variety rather than the draft type. By golly, a horse has become a status symbol instead of a necessity. My daughter

tells me that "just everyone has a horse"—the theme song of young folks who want something.

The other day across my desk came a press release about a new product—high potency vitamins in candy-like form for horses—the "hoss" has arrived! Listen to the pitch, "One of these a day provides a horse with all the vitamins and trace minerals he is known to need." The product comes in a fancy box with a separate compartment for each vitamin "candy." Just think, the cowboy hero will no longer kiss his horse at the fadeout, but can now reward him with a high potency pill!

All joking aside, our four-footed friend with the uncloven hoof has become numerous once more here in the Northeast. Be sure and check the article on page 14 for ideas on how to join in the fun, or become better informed if you already own a horse.

LET'S LEGALIZE THE RED LIGHT

THE FOLKS in New Hampshire have been learning fast from their neighbors in New York. The Empire State, as you know, rakes in an enormous amount of money from pari-mutuel betting on the horses.

The Granite State lawmakers saw what was going on and decided to legalize a state-sponsored sweepstakes lottery that is expected to pay off with \$4,000,000 annually—to be used for schools, say officials. It will be the Irish Sweepstakes of North America, although supposedly limited to New Hampshire residents.

Proponents of state—and federal—lotteries argue that the end justifies the means. People like to gamble, they say, so why not let them as long as government gets a cut in the process? After all, public officials can then divert this money to worthy ends, such as schools or roads.

Following this line of reasoning, why shouldn't the world's oldest profession be legalized and a tax collected from the ladies' earnings? After all, everyone knows that this profession exists and that there will always be demand by some customers. Perhaps that part of the proceeds going to the public till could be used for better law enforcement and for public health programs designed to combat venereal disease.

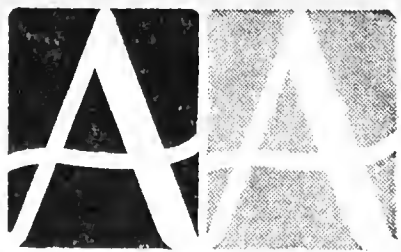
The thing that bothers me is that I seem to detect a trend toward using human weakness as a source of public funds, rather than human strength as measured by productivity. Across the years I, too, have learned that a full house beats a straight in poker, but at the same time recognized that nobody ever really gets something for nothing.

It seems to me that it is safer for a nation—or a state—to draw its public funds from the productive strength of its people rather than levy a tax on their weakness. If the voters want more public expenditure, I am for higher taxes. I think people make better decisions about what should be done with public funds if they pay for it in taxes, rather than in a manner disguised as something else. What is your opinion?

FARM HOME

The memories of yesteryear,
Of life down on the farm;
The sights and sounds; the special
smells,
All hold their mystic charm.
The golden flow of waving wheat,
Sweet scent of newmown hay;
The deep cool brook that courses by,
The crimson birth of day.
The apple tree white as the snow
With blossom-laden bough;
The drone of bees at work above,
How I remember now!

Austin Van Avery



FARM DOLLAR GUIDE

HOG WEIGHT SHRINKAGE ON WAY TO MARKET can be cut in summer by putting wet sand in truck, loading truck to capacity, and hauling at night when it's cooler. A 220 pound hog will shrink about 1.6 pounds in 35 miles of travel.

THE AMERICAN FARM BUREAU FEDERATION ASKS A REDUCTION of \$11.8 billion in Federal spending for fiscal year 1964, including a cut of \$1 billion in USDA appropriations, and a cutback in the number of Federal government employees to the 1961 level.

SOUTH DAKOTA EXPERIMENT STATION has studied returns from conditioning hay. With hay that had not been rained on, dairy cows ate 11.7% more hay that was crushed before baling than hay not crushed. Cows fed conditioned hay averaged to produce 1.2 pounds more milk per day than when fed unconditioned hay not rain damaged. Conclusion was that added cost of conditioning can be offset on 30 cow herd in three years.

TESTIMONY BY UNDER SECRETARY OF AGRICULTURE, CHARLES MURPHY, to Senate Committee on Agriculture, indicates that the Administration favors a two-price plan for milk under federal orders. However, producers in each market would be required to vote yes on any proposal submitted or lose the entire order. Dairy cooperatives ask that if a two-price plan is brought to vote, dairymen be permitted to vote no without danger of losing the entire order.

YOU MAY WANT TO GET USDA Handbook 120 "Insecticide Recommendations." Send \$1.00 to Superintendent of Documents, Washington 25, D. C. If you follow its directions, you won't endanger wild life or humans.

WHILE VOLUME IS IMPORTANT, it is generally poor business to expand production of eggs on the assumption that volume alone will reduce costs to the extent that a profit will be made. Economics in size may be very limited in increasing from 15,000 birds to 40,000 or 50,000.

NEW JERSEY FARMERS ARE FIGHTING for an amendment to the State Constitution to require taxing farm land on basis of value for farming, not as potential building lots.

The Song of the Lazy Farmer



THE gals are smart when they pick June to start upon their honeymoon; no other month in all the year is quite so fair and filled with cheer. The earth is green, the skies are blue, and ev'rything looks fresh and new; the temperature's exactly right for sleeping either day or night, the gentle sun upon your back rules out the danger of attack by rheumatiz, yet ain't too hot like August will be, like as not. Especially if you're on a farm, it's hard to see how any harm can come to you as long as June is playing out its cheerful tune.

Both stock and crops upon the land are growing up to beat the band; the heavy springtime work is through, what jobs there are this month to do Mirandy and the hired man will handle better than I can. Which means I can relax a bit while neighbor has another fit because I won't help him today put up the year's first crop of hay; but it won't hurt if I don't go, he knew beforehand I'd say no. With hungry fish down in the crick, to toil would surely make me sick; besides, my reputation soon would be lost if I worked in June.

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CYGON... THE BEST NEW FLY CONTROL IN 20 YEARS

One CYGON spray in dairy barns, poultry houses and animal shelters, controls flies up to 8 weeks or longer ...including flies resistant to all other sprays.*

Now, for the first time since DDT was new, there's a fly spray that keeps on killing flies for months. Under most conditions, only two CYGON sprays can give seasonal control of flies. (Some areas report 3 months' control with one spray).

Flies stay dead

Unlike "knock-down" sprays, flies downed by CYGON are dead. As a matter of fact, flies that come in contact with CYGON do not topple over — only to rise again. It takes some hours for CYGON to "soak-in", but then they're done for ... for good.

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CYGON kills *all* flies ... including those that are resistant to chlorinated hydrocarbon and phosphate insecticides.

Economical control

Because CYGON keeps on giving control week after week, it puts real economy into the fly control job. And CYGON is versatile. It can be used as a residual wall spray inside dairy barns, poultry houses, hog pens and livestock shelters. It

can be used as a spot spray around windows, doorways, fences ... wherever flies congregate. It can be used on fly breeding areas such as manure.

Readily available

CYGON will be readily available this year. Remember, a little CYGON goes a long way ... it gives the *best* fly control.



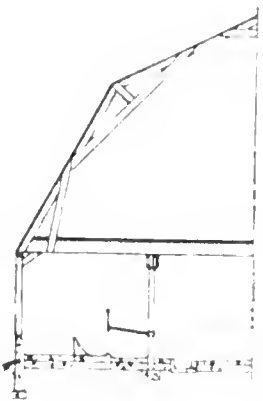
CYGON is available in pint, quart and gallon sizes. *trademark

AMERICAN CYANAMID COMPANY
PRINCETON, NEW JERSEY



As a residual wall spray or to spot treat fly resting places such as doorways and windows, CYGON keeps on killing flies for weeks. Applied to fly breeding places such as manure, it kills maggots before they become flies.





Plan Now - Build Later

By RONALD B. FURRY*

WHEN YOU remodel or build a new farm structure, getting recommendations and other information is just the first step. Then comes the need for organization. This way you can plan a structure that will not only meet immediate requirements but will allow for expansion. In other words, "plan your work—then work your plan."

The steps considered in planning are as follows:

1. **What is needed?** Exactly what type of structure do you need? For instance, should it be a conventional single or double-story dairy barn—or would your operation better utilize a pole barn with loose housing? Is it economically sound to remodel your old building—or is a new structure required? How much labor, time and money can you afford to put into "tearing out the old" preparatory to putting in the new? Would it be more economical to put this money into the building of a new structure? Can you remodel entirely within the old building or buildings—or will an addition also be required? Have you allowed for later expansion, or are there buildings in the way of that?

2. **How much can you spend?** If finances are not sufficient to remodel or build the whole arrangement at once, **don't underplan**. Draw up your whole plan anyway, then work on the areas of greatest need first.

3. **Select your site.** Is it well drained? Will it allow for proper sunlight and be protected from the prevailing winds? Is it readily accessible in bad weather? Will any special or costly excavating, draining, or foundation work be necessary? Can you justify the cost of the work and materials necessary, or should you select another site?

4. **Secure detailed drawings.** You may possibly sketch out your own plans, obtain them from your county agricultural agent, your Extension agricultural engineer, get them direct from the Plan Service at the New York State College of Agriculture at Cornell, or from commercial organizations. In any event, **obtain a drawing**. It is cheaper to make your mistakes on paper and to correct them with an eraser than to saw out or board up a mistake during construction.

Sketching out your own preliminary plans will familiarize you with how and where to start the work, and eliminate a lot of guesswork and lost time on the job. Make as many decisions beforehand as possible—many new ones will turn up during the actual construction. Then, too, drawings will make it easier for your helpers to follow the work—and can easily be referred to when you are not around.

5. **Figure out the cost of materials.** Make a list of how many and what size joists, rafters, studs, etc. you need. From this you can determine the number of board feet and the cost. Will it be cheaper to cut out your own lumber or buy it from

a mill (include your labor and trucking costs)? How many cubic yards of concrete, number of masonry blocks, steel posts, squares of roofing, and so on, are needed? How much will they cost?

It is fairly simple to do all this estimating if you have a sketch of the structure; it helps to eliminate over—or under—ordering of materials. The bill of materials will also help you do a better job of balancing costs, and enable you to select the right materials for the job. Do not overlook the limitations of the materials—ask yourself whether or not you are getting your money's worth.

6. **Who will do the job?** Can you afford to take time out, or should you hire a contractor? Will you be around to inspect the work? If you can do some of the work, what jobs can you do best? Are you a better carpenter than mason? How much labor can you hire—and is it available?

7. **Time schedule.** When should the work be started? When should it be finished? How much interference and delay can you expect from bad weather, emergencies, etc.? How long should the concrete cure before working on it? What is the order of doing the work, and how long will each part take? Delays may cost you money.

In **working your plan**, don't rush into the project without considering all the steps. Think it out sufficiently to avoid overlooking important considerations and decisions. Follow your plan of work to avoid confusion, lost time, labor, and money, and to make slight deviations easily recognizable so that they may be accounted for and incorporated at the proper time.

There may be just what you want in the way of plans or information relating to construction of farm buildings on file in the Agricultural Engineering Department at Cornell. See listing for some suggestions. Write for "Plan Lists" and "Lists of Publications" to Agricultural Engineering Extension, Riley-Robb Hall, Cornell University, Ithaca, N. Y. These are available, as are the plans, to residents of states other than New York.

When you have about decided which plans you think will suit your program best, be sure to talk them over with your local county agricultural agent before ordering. He probably will have some worthwhile suggestions. And take time to visit other farmers' setups and compare notes.

In ordering plans from the Agricultural Engineering Department, be sure that the name "Riley-Robb Hall" is included in the address, and that your check (made payable to Cornell University) accompanies the request for specific plans.

Several commercial organizations also have plans available, and the names of some of them are included in the list that accompanies this article.

In addition to plans for farm buildings, the Agricultural Engin-

(Continued on Page 13)



PACE SETTER IN POPULARITY

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Ford "4000" 3-4 plow all purpose tractor—Power for plowing and harvesting plus all the jobs in between. Long on convenience, durability and quality. Full 10-speed power shift Select-O-Speed or 4- or 5-speed transmissions to choose from. Three different PTO choices, too. Ford's fine hydraulics and 3-point hitch. New comfort seat. Available in gasoline, LP-gas or diesel.



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Ford "6000" 5-plow all purpose tractor—Exclusive and standard features include Powr-Stor hydraulics that won't sap engine power when you need it most . . . Select-O-Speed, only full power shift . . . power disc brakes . . . 2-position steering so you can sit down or stand up and drive . . . 3-point hitch. Row crop models, too! Choose either gas or diesel and expect amazing fuel economy.

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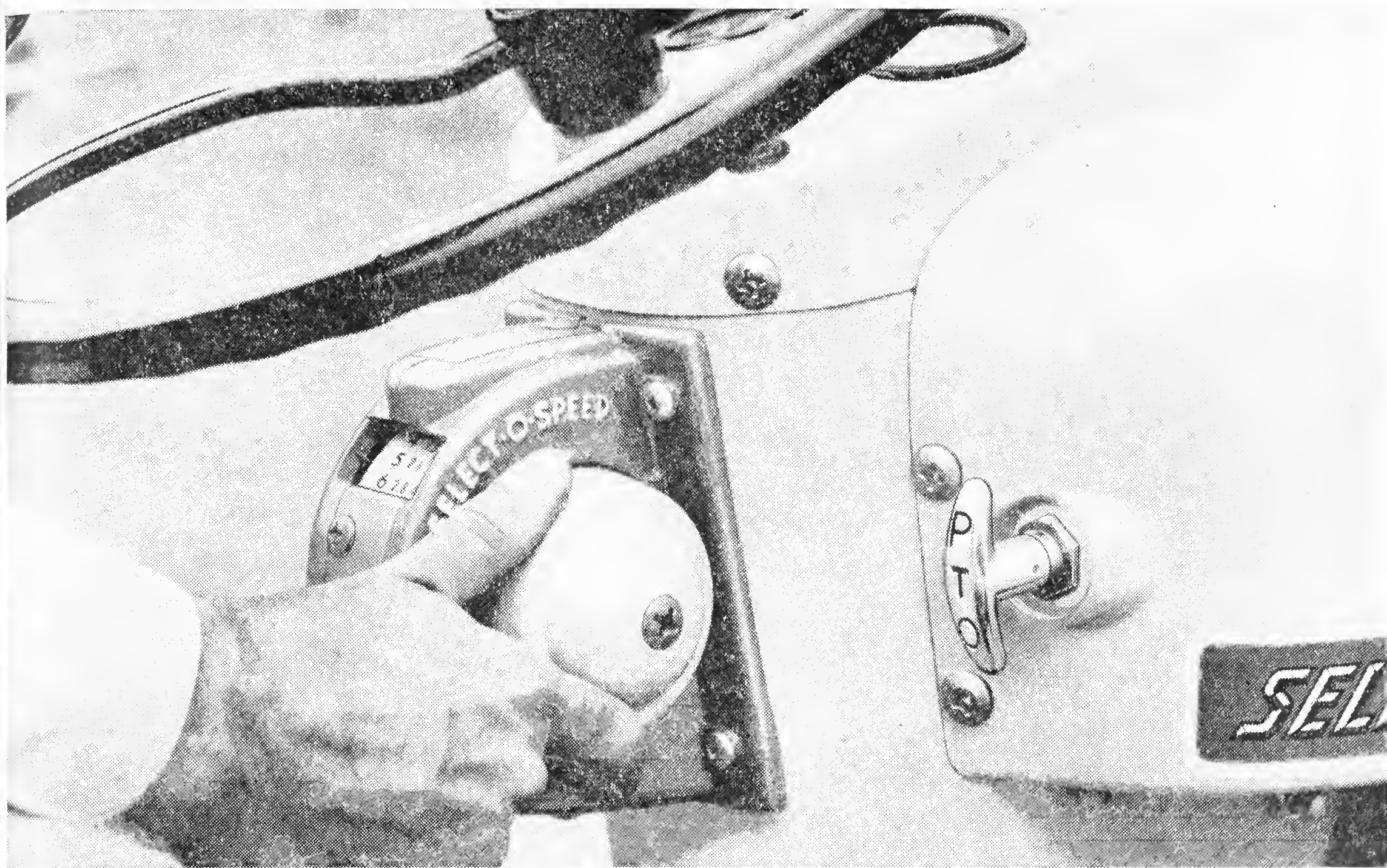
- ★ **No interest—no payments** scheduled for 6 months or 'til us date, whichever occurs first, on major harvesting equipment.
- ★ **No interest—no payments** scheduled for 4 months or 'til us date, whichever occurs first, on tractors and implements.
- ★ **Skip some payments** on monthly plan during low income periods.
- ★ **Only 1/5 down** on some contracts for tractors and implements.
- ★ **Up to 4 crop years to pay** for major purchases.

Take delivery now . . . use your present equipment for the down payment. Put a Ford on your farm now and save plenty! Pick the payment plan that's best for you.

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* Dept. of Agricultural Engineering, Cornell University



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Teamed with Select-O-Speed, this unbeatable combination allows you to run PTO equipment at the most efficient capacity with no fear of plugging or overloading. You can keep PTO and tractor rpm constant while you vary the crop intake by merely changing ground speed with the Select-O-Speed lever to match differing crop and field conditions.

3 power shift tractor series. New blue quality Ford Select-O-Speed tractors come in 2-3 plow, 3-4 plow and 5-plow sizes. Stop in and see our new 2000 . . . or perhaps the 4000 series would suit your needs better. More power, you say, well then look over the new 6000 model with industry-leading Powr-Stor hydraulics, stand-up steering and other exclusive features. Remember, Ford makes row crop and all purpose models . . . fuel options and special equipment, too.

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FORD

SAVES SHIFTING STOPS



Gayway Farm Notes

By HAROLD HAWLEY



GOALS AND OBJECTIVES

I overheard a conversation recently which got me thinking. One fellow was asking why all this striving for something better or newer or bigger. What's it all for? What's it get you? How are you any better off than someone who does less champing at the bit and lets progress go by him?

I have no notion what the proper answers are. It does, however, seem obvious that depending on a person's make-up, his physical, mental, and financial resources, etc. etc., one set of answers will fit him — and perhaps no one else. It is a wonderfully fortunate coincidence that those things which bring satisfaction to many of us as farmers also bring in extra income. Few are so foolish as to regard money as a goal in itself—yet it does seem to be a necessary part of any continuing business.

Some may look back with nostalgia to the "good old days"—but not I. Those days were fine, but nothing to return to after a taste of the present.

We are living in an age of change, which means endless adjustments, extra opportunities, and new stimuli and rewards. A period of change and challenge is to me the best of all times in which to live and farm. May it continue!

And may our personal goals stretch out ahead and beyond us—always a little too big. This way we can dream, and dreams have a way of coming true for ambitious men and women in a free society and a land of opportunity. Sure, all roads lead but to the grave, but in traveling along through life we may as well live it to the hilt. This means, as far as I am concerned, to grow a better crop or keep a better cow, to live in a better house or enjoy a better rose, to earn the leisure and the price of a dreamed-about deluxe vacation, or the satisfaction of helping in a good cause.

I used to say I'd rather be really alive for 50 years than half-dead for 100. Of course, as I approach 50 I say this less often, but it remains a fact that too much of the time we are unaware of the potential that is ours — to work, to accomplish, to love, to grow, to enjoy and to serve, and, yes—to worship.

Many of our mistakes have been pretty obvious and pretty painful, but the real tragedy is that we are so seldom aware of the great opportunities we miss.

BIG BARE HAY MOWS

Never in my memory have so many hay mows on so many farms been so bare. Of course, those who were short of hay cleaned them out. With hay prices the highest in years those with surplus hay also pretty well cleaned out. A lot of old hay (possibly three to four years old) changed hands during April around here.

This raises an interesting question. How much does hay decline in nutritional value by lying over another year? The reluctance with which most farmers accept old hay indicates a belief that feeding value is reduced. We sold some two-year-old hay—but if I was to feed old hay to the milkers I think 3-year-old hay would be a better bet. The spring and summer of 1961 were wet and hay was rank; it generally was not as good as usual. Certainly '62 hay was worth a lot more than most '61 hay—and possibly so was '60 hay.

SUMMER FEEDING

Last summer we had a hay rack mounted on an old set of running gears and had hay available to the cows day and night. This worked so well we think it worth while to rig up another rack so we can have one in the day pastures and one in the night pastures. This will avoid moving the rack every night and morning as we did last year.

One of the good things to come out of last summer's drought will likely be the continuation of more summer feeding of cows even though they are on good pasture. We have always fed hay and grain in the barn every day all summer, but a rack in the lane or pasture surely is an added help.

MILKING SHIRTS

For years we have put on a different shirt and hat for milking. This has nothing to do with better milk, but with better domestic relations! It's just that I don't like hairy hats and clothes, and none of the family likes the smell of cows around the table. So we've gone deluxe. White shirts for milking!

It works like this. Doris brings home a whole armful of dress shirts from the church rummage sale. We cut off the sleeves to elbow length and the tails to about belt length. They fit easily over our regular work shirts. I wear them a while and bring them in to be washed. About 3 or 4 washes usually finishes them; but a dollar's worth of shirts lasts quite a while.

HOW THICK MY CORN?

For several years we planted corn in 36 inch rows with a 6 inch stand. This never was just right for our mounted picker, which centered on 38 inch rows. Last year we changed the planter to 38 inch rows but left the stand the same. Probably that was thick enough in a dry year. This year we will put it in a little thicker—about 4½ or 5 inches in the row. Unless moisture is a limiting factor, the additional plant population should mean more silage or grain per acre.

With today's fertilizing and weed control practices, stands can just as well be thicker than formerly. Manure on all fields close by, sod or corn

stalks with rye grass plowed down with 75 pounds actual nitrogen, 400 pounds 10-20-20 with the planter, the best seed available selected for fairly early maturity to insure hard corn, planted 5 inches in the row, 38 inch rows in soil plowed and fitted once with a disk; granular atrazine applied in 8 inch bands over the row with the planter, 2,4-D sprayed on when the corn is 4-6 inches tall; cultivate and broadcast rye grass when the corn is knee high.

That's our 1963 corn program. It's some different again this year—let's hope for a better weed control job than last year.

GREEN, GREEN GRASS

It looked greener on the other side—and it was! Doris and I were travelling east on the Thruway down through the Mohawk Valley section in early May. She was driving and the grass was ever so much greener on her side! We finally decided the explanation was that the hills on the north side of the valley sloped to the south and were lush and green, while the pastures were still brown on the south side of the valley where the grass had barely started on the cooler north slopes.

There's nothing new about this, but never have I seen it so striking. Maybe that is because all of us were so anxious for the grass to get tall enough to turn the cows out.

We nitrated some orchard grass pasture in early April, but the cold nights and dry weather made the results pretty disappointing. There was no grazing until about the 10th of May. This was ahead of the fields not nitrated but still pretty late. All grass was late due to the unfavorable weather, and the nitrogen naturally did little until conditions were suitable for growth. Then how it did push that grass!

Almost the same could be said of wheat and barley. Nothing much happened after nitrating until temperatures became favorable. However, I did observe that some wheat not nitrated had a yellowish cast, whereas nitrated wheat, even though not growing as fast as hoped, did have good color.

Dates to Remember

June 18-21 — NEPPCO Egg Quality School, University of Maryland, College Park, Maryland.

June 27-28 — NEPPCO Poultry Industry Conference, The Schine Inn, Chicopee, Mass.

June 30 — Dairy Goat Show sponsored by the Eastern New York Dairy Goat Club, Schaghticoke Fair Grounds, Schaghticoke, N. Y., beginning at 11 a.m.

July 1 — First date for filing application Federal Gas Tax Refund for gas used up to June 30, 1963.

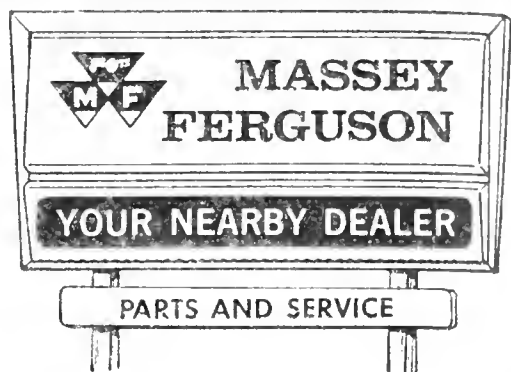
July 10-11 — New York State Poultrymen's Get-Together, Cornell University, Ithaca.

July 12-13 — Maine Broiler Festival, Belfast City Park, Belfast.

July 17 — Statewide Connecticut Forage Field Day for dairy farmers (rain date July 18) Agronomy Research Farm, Storrs.

July 20-21 — All-Electric Farm Field Day, sponsored by the Connecticut Light and Power Company, Bass Farm, Scotland, Conn.

Aug. 14-15 — Farm Equipment Show including Farm Materials Handling Exhibit similar to 1962 events at Alfred and Cobleskill. Seligman Farm, Prattsburg, N. Y.



NEW YORK

AFTON, Bennett H. Decker
ALBANY Abele Tractor & Equip. Co., Inc.
AMSTERDAM, H & M Equip. Co., Inc.
ANTWERP, Northrop Equip. Co., Inc.
ATLANTA, Steuben Farm Supply, Inc.
AUBURN, Clark & Whaley
BALLSTON SPA, A. L. Pettit & Son Equip. Inc.
BATH, James H. Burns
BELLEVILLE, Bob Henry, Inc.
BERGEN, Kaiser-Wilcox Corp.
BLOSSVALE, Jay's Sales & Service
BOSTON, Emerling Chevrolet Co., Inc.
CANANDAIGUA, Donald J. Howard
CANTON, Dewey Cornell Farm Imps., Inc.
CENTRAL BRIDGE, J & P Imp. Co.
CENTRAL SQUARE, Central Square Imp.
CHERRY CREEK, Cherry Creek Motor Sales
CHESTER, Chester B & J Garage
CLINTON, Marsh's Farm Equip.
DAVENPORT, MacCracken Farm Supply
DERUYTER, H. W. Cook Farm Service, Inc.
EAST AURORA, Circle Mtrs. of E. Aurora, N.Y.
EAST SYRACUSE, Northeast Tractor Sales
ELBA, County Line Garage
ELLENBURG DEPOT, S. L. Drown & Sons, Inc.
FILLMORE, Farm Machine Service, Inc.
FORT EDWARD, Emerson C. Grant
FRANKLIN, Ray Tilley & Son
FRANKLINVILLE, C. A. Phillips & Sons Inc.
GOVERNEUR, Jones Farm Supplies
GRAND GORGE, Sauveur Garage
HERKIMER, Palmer J. Watkins
HICKSVILLE, L. I., Wm. Kroemer & Sons, Inc.
HORNELL, Thatcher Brothers
ITHACA, Ithaca Farm Equip. Inc.
JEFFERSONVILLE, Jeffersonville Garage
KIRKVILLE, Mabie Bros. Inc.
KINDERHOOK, Kinderhook Farm Equip. Corp.
KING FERRY, Roy A. Tuttle
LAFARGEVILLE, Glenn Johndrow
MILLERTON, Scoland Farm Equip.
MARCELLUS, Nightingale Mills, Inc.
MARTINSBURG, Ingersoll's Farm Supply Co.
MIDDLEPORT, R. Max Hyde
MOIRA, Henry Eseltine M-F Sales
MONSEY, Monsey Tractor Co. Inc.
NAPLES, C. W. Guile
NELLISTON, Hawkins Tractor & Imp. Sales
NEW HAMPTON, Sosler Garage & Farm Imp.
NORTH JAVA, Java Farm Supply
NEW PALTZ, New Paltz Tractor & Equip.
NEWPORT, Waller Sales & Service
NORWICH, R. D. Smith and Sons
ONEIDA, Marshall & Houseman Inc.
OWEGO, J. D. Hunt & Son
PANAMA, Panama Farm Supply
PIFFARD, Parnell Sales & Service
POUGHKEEPSIE, Inland Trac. & Equip. Co. Inc.
RICHFIELD SPRINGS, Hillside Equip. Co.
RIVERHEAD, William Kroemer & Sons, Inc.
SHERIDAN, Main Motors
STONE RIDGE, George Von Bargen
THORNWOOD, Stark Equip. Co. Inc.
TROUBSBURG, Elbert Potter
UTICA, Credle Equip. Inc.
VALATIE, Heins Equip. Co. Inc.
WADHAMS, Lewis Farm Supply Inc.
WALLKILL, Valley Farm Supplies Corp.
WATERLOO, Finger Lakes Equip. Co.
WESTFIELD, Rammelt & Son
WEBSTER, Buckner-Miller Inc.
WILSON, Thomas Brawn
WILLIAMSON, Ralph A. Verbridge
WINDSOR, Farm Machine Service Inc.
WOLCOTT, Galvin Bros. Farm Service Inc.
WOODSIDE, L.I., Mid-Atlantic Equip. Co. Inc.

NEW JERSEY

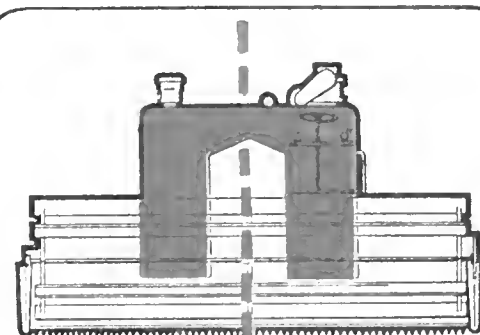
ALLAMUCHY, Clark Sales & Service
BRIDGEBORO, Fortnum Motor Co.
DEERFIELD STREET, Ackley's Garage
FLEMINGTON, Flemington Fm. Equip. Co., Inc.
FREEHOLD, Dreyer Equip. Co.
HAMMONTON, Rodio Tractor Sales
HIGHTSTOWN, Hights Farm Equip. Co.
LAKEWOOD, Bartolf Equip. Co.
MAHWAH, Farmers Auto & Equip. Exchange
MT. HOLLY, Hy-Way Tractor & Equip.
NESHANIC STATION, J. S. Covert & Sons
NORMA, Norma Motors
PINE BROOK, Shulman Equip. Co.
STEWARTSVILLE, Esposito Farm Machy.
WICKATUNK, Conover Bros.
WOODSTOWN, R. J. Franzen



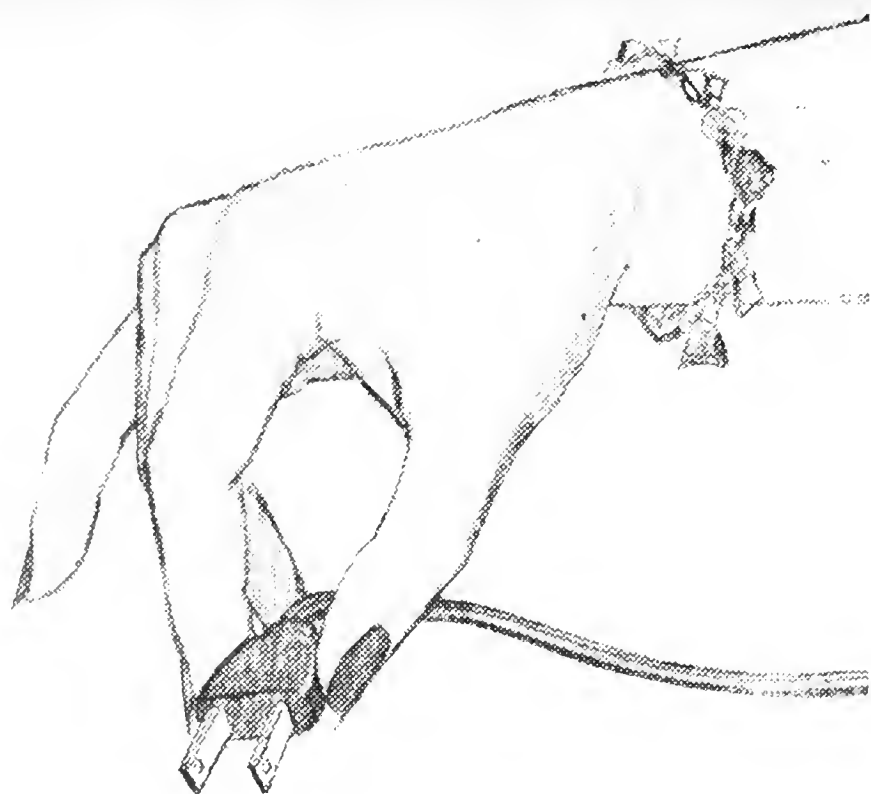
MASSEY FERGUSON



NON-STOP HARVESTING! MF's all-new "300" has 18 on-the-go controls—including cylinder speed and concave spacing adjustments—for faster, cleaner harvests. Revolutionary Saddle Tank design adds capacity, maneuverability, stability. Comes with 11' or 13' cut. Converts for beans or corn in 30 minutes. Once you see it, none other will do! The new Massey-Ferguson 300—it's great!



**EXCLUSIVE
SADDLE TANK
DESIGN**



Whiz away household chores with electricity!

Electricity has made farm work easier... more profitable. But what about the farm house? The time-and-labor saving convenience of low cost electricity makes just as much sense in the farm home as it does in the barn.

With a modern electric farm home you'll have a sleek, glamorous kitchen. Labor saving electric appliances will do the laundry, wash the dishes... give you more time to spend with your family... more time to entertain.

Let our Farm Service Representative survey your home—and suggest easy steps which can put a "Medallion" on your door.



YOU FARM BETTER ELECTRICALLY!

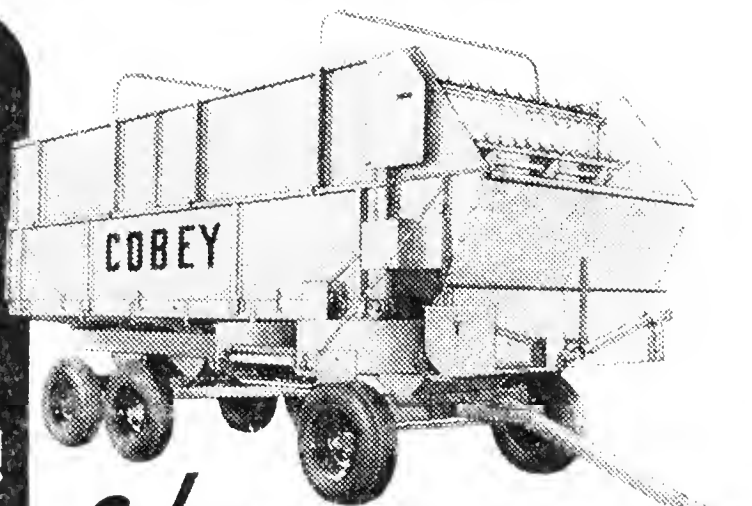
NOW!
Improved
for Even
GREATER
Performance!

All Steel, Construction

No Wood Used —
No Bolt Heads
Pulling Through

Reverse for Instant
Rear Unloading

Choice of Tandem or
Single Axle Gear



Cobey 51-BF BUNK FEEDER WAGON

Try and match this! Two men with two Cobey 51-BF's and a good blower have chopped, hauled and blown as much as 100 tons of silage in half a day. That's REAL and ACTUAL performance!

Furthermore, the Cobey 51-BF can haul and unload shelled or ear corn, chopped corn stalks, wheat, oats, grass forage - or you name it. The Cobey Bunk Feeder Wagon is always ready to out-perform all others! Write for full information.

THE COBEY CORPORATION, Galion, Ohio

MAIL THIS COUPON TODAY!

Gentlemen: Please send complete data on your 51-BF Bunk Feeder Wagon, and Folder on the Cobey Haulage Equipment.

Name

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REGISTERED HEREFORDS FOR SALE

YEARLING AND TWO YEAR OLD BULLS

From one of the Largest Herds of Clean Pedigreed Cows in the East
Sired by CK and Colorado Domino Bulls

Also for Sale 200 Yearling Grade Heifers
Exceptional Quality

EUGENE P. FORRESTEL,

MEDINA, NEW YORK



The baler in operation on Hominy Hill Farm. The man with the straw hat is Mr. Dreibelbis himself. Normally, three men operate the rig.

High Potency Hay!

By Amos Kirby*

FOR A NUMBER of years the name of Harvey Dreibelbis, manager of Hominy Hill Farm, Colts Neck, Monmouth County, New Jersey (owned by Henry Mercer) has shown up among the top winners in many hay exhibition contests. His name became even better known when Hominy Hill produced a dried hay with—hold your breath—an analysis of 24.28 percent protein and 79.98 percent total digestible nutrients! Incidentally, Hominy Hill Farm is also well known for its fine herd of high-producing Guernsey cattle.

Recently I visited Hominy Hill Farm and talked with Mr. Dreibelbis, a Pennsylvania-Dutchman who grew up near Reading, Pennsylvania. I asked for his secrets of producing such high quality hay. Harvey's reply was: "There are no secrets in producing good hay that are not available to any dairyman. Anyone can produce good hay by doing what should be done—and that goes back to testing the soil, applying what a crop needs, and starting to harvest the hay when it contains the most protein and TDN. There are more advantages in early cutting than in going after a high tonnage on the main crop."

The System

Starting at the beginning, Hominy Hill stresses soil tests to guide fertilization. Their second step in producing good hay is to have a mixture of grasses in the finished product. They use alfalfa, timothy, brome, orchard grass, and some red clover; they have no straight alfalfa. When asked why, the answer was: "Humans like variety in their diets, and so do cows."

Early cutting is considered important. In 1962 they started to harvest on May 5, and continued into June. With over 300 acres of hay land to harvest, and only three men to do the cutting, baling and drying, they have to start early. Usually they take three cuttings a year, but they have cut some fields up to four times between early May and late September.

The hay drier is of the down-draft type, and air is heated with an oil burner. This, by the way, was the first down-draft drier developed, and is now being copied across the country. It was designed by Mr.

Dreibelbis and engineers from our agricultural colleges. Actual operating cost of drying ranges from \$5 to \$6 a ton, depending on the time of year and the amount of moisture in the hay. It has been estimated that the depreciation on a hay drier may be about \$5 per ton annually, or a total drying cost of between \$10 and \$11 per ton.

After the wagons are loaded, they are parked in a drying shed where heated air blows down through the hay from an overhead duct. Seven wagons can be handled at one time.

On Hominy Hill Farm only three men are used in harvesting 700 tons of hay and for all field operations.

Harvesting

When harvesting is started in May the hay is cut one morning and baled the next afternoon, when the moisture content ranges from 45 to 50 percent. Later on in the season they cut in the morning and bale in the afternoon of the same day.

In early May harvesting, only two layers of bales are placed in the wagons when they go to the drier; later on there may be up to five layers of bales. Hay going in the drier in the afternoon is ready for storing the following morning.

Mr. Dreibelbis has had the assistance of such men as Professor Mark Singley of the New Jersey Agricultural College, and Carl Bender, daddy of the grass silage development, as advisers in his hay-making program. Commenting on the hay show at the recent annual meeting of the Northeastern Hay Drying Association, Professor Singley says:

"This was the finest hay show I have ever seen. There were 92 entries, all of excellent quality. Harvey Dreibelbis took five first placings and both the Grand and Reserve championships. Only after seeing the samples can one believe the remarkable change that has occurred in the preservation of hay. One of Harvey's samples had 24.28 percent protein, and people have only discussed as the wildest dream being able to reach 25 percent. Another sample had 79.98 percent TDN. Again, to reach 80 percent TDN is almost like running the four-minute mile!"

Mr. Dreibelbis is frank to admit that not all of his hay runs as high in protein and TDN. But these levels have been reached, and have become goals toward which others can aim in years ahead.

* New Jersey Editor

— American Agriculturist, June, 1963



HOME FEED MIXING

I think that the article recently published in *AMERICAN AGRICULTURIST* on mixing feed on the farm doesn't tell the whole story. Any feed dealer will readily admit that he makes no money on grinding-mixing charges. He doesn't break even; he calls it an investment in come-on. His profit is made in the grain sold, in supplement, in molasses and markup on supplies.

Now that may not sound like enough to each customer to warrant an investment of a \$1,500 to \$1,800 mixer-grinder, but it was to us.

We buy protein supplement at quantity prices, oats from a neighbor, and truck and handle it ourselves. We are free to shop, dickering and bargain on price. We're looking ahead to buying soybean meal by the carload with a neighbor, and oats from the field from another neighbor. Our machine does a good job of both grinding and mixing ingredients.

Much of this boils down to a payment for services, as the author of the article stated. But to a farmer caught in a money-labor squeeze (not enough profit and too much work for one man to do alone) one of the first places he will cut is on cost of services. We think we pick up a considerable number of profits which would potentially go to feed dealer by doing our own grinding and mixing on the farm.

Many farmers will find your article discouraging, for I suspect that they think of doing their own grinding as a way of cutting expenses. We have found that it is. Of course, we have 50 milkers; a smaller business might not find the advantages we do.—*Chester P. Mapes, Scipio Center, N. Y.*

CURE!

My wife's father had a tree afflicted with "maple decline" and someone told him to bore a two inch auger hole six inches deep into the tree and pack it full of blue stone (copper sulfate). He did. They then whittled a plug and drove it in tight and sawed it off short against the tree. This was 62 years ago and the tree is still living. I had several more, thirty years ago, that got the same treatment and are still healthy. Two years ago we had three that were on the way out and we gave them the dose and they were the greenest ones we had during the drouth last summer.—*Harry W. Beaver, Troy Pa.*

RESTRICTING WORK

Good for you and your editorial speaking up for the relaxing rather than tightening of laws restricting work opportunities for youth!

As a father of five, the youngest of whom will be entering college in the fall, I too have been irritated by the ridiculous and antiquated laws as applied to today's work hours and conditions. You are so right when you say "lack of constructive work that has to be done is one of the major causes of juvenile delinquency."

Over the past thirty years, I have had active contact with youth in my own communities, primarily through 4-H and scouting programs. It has been increasingly obvious to me that, by age 12, most normal youth are capable and want constructive work and goals. Money earned by honest work is still one of the best ways to reward youth, providing parents are wise enough to limit money handouts sufficiently to give them incentives.—*Donald D. Benson, Springfield, Massachusetts*

PUMP PRIMING

I suppose my Cornell background leads me to suggest a method to prove the merits of dowsing; for

the scoffers should be shown and the believers vindicated. A study should be made of the art of dowsing and its effectiveness. The ten most skilled dowsers of the entire United States could be employed each locate 10 spots where water can be found and 10 spots where it cannot be found, then test holes sunk to test the correlation between the predictions.

This project has unlimited possibilities. In addition to supplying needed scientific data pertinent to dowsing, it could be used as a public works program to prime the pump during periods of national depression. Perhaps the study could be extended to each county of the entire nation—this would provide op-

portunity for unemployed technicians, well drillers, and statisticians to make useful contributions during periods of otherwise inactivity. The producing wells would literally prime pumps. After all, the greatest threat to economic growth is the shortage of water. These considerations would easily justify the use of public funds for the project.

There could also be an agricultural bonus in the project. Test sites could be selected to retire land from agricultural production in such a fashion to eliminate the surpluses.

—*D. A. Van Slyke, Wilder, Idaho*

Four out of every ten jobs in private employment are related to agriculture.



...WEEDAZOL CAN KILL YOUR THISTLE, AND MILKWEED, AND SPURGE!

Work horse weed killer. That's what they call WEEDAZOL. And no wonder! Developed especially for eradicating hard-to-kill perennial weeds, WEEDAZOL has replaced the old time-consuming cultivating techniques and less effective 2,4-D's. It continues to be the most popular *specific* herbicide for Canada thistle, whitetop, leafy spurge, milkweed, sow thistle and others.

Here's how it works. The chemical moves through stems to underground storage roots and kills even as new shoots form. It won't sterilize your soil, won't create fire hazards, handles clean and safe. Best of all, you can treat a solid stand of thistle, two rods long by one rod wide, for as little as 25 cents!

For those of you who prefer an easily mixed liquid, Amchem provides AMITROL-T. Same powerful weed killer formula, same effect on hard-to-kill perennials... but with the added convenience of spray application.

If you're bothered by perennial weeds and want low cost control, ask your Amchem Dealer for WEEDAZOL... the original aminotriazole, or AMITROL-T in the convenient liquid form.



AMCHEM PRODUCTS, INC.

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Strawberry shortcake coming up! Left to right: Fred Smith, Jennifer Wheatland, Ferne Wheatland, and Maxine Dull.



STRAWBERRY PICKERS PICNIC...

*Fun and cheaper berries for customers
Less work and worry for Fred Smith*

by Hugh Cosline

WHEN A MAN bites a dog, the news makes headlines. When a hundred people pick strawberries on the Fred Smith farm located on the Perry City Road in Tompkins County, New York, he doesn't pay them a cent. They pay him—and that should be noteworthy, too!

Of course, the "pick 'em yourself" method of marketing isn't exactly new. It has been used for all kinds of berries and fruit, and for some vegetables. In fact, Fred raises a few peas on the "you pick 'em" basis. For a few people in an area who know how to handle this method, and who have the "know how" to produce a quality product, it has great advantages as a method of marketing.

Reduces Risk

For one thing, it reduces the risk. In the twenty-five years that Fred has been in the business, his basic price for berries has been 25 cents a quart, varying but little up or down depending on market conditions. Were he to depend on the wholesale market, there would be the cost of picking, the containers, transportation, and most important, the price received based on a fluctuating market price.

But, as with all good things, this method of selling has its problems, mostly based on human nature. How big is a quart? There's the old saying: "Don't ride a good horse to death." Fred solved the problem by a sign which says:

"Berries, 25 cents a quart. Heaped quarts, 30 cents." It isn't necessary to use the rule often. It is used occasionally, but mostly the sign serves as a reminder.

Then there are the few who have an uncontrollable desire to wander over the entire field of 12 acres, picking only the extra big berries! There is the ill temper of some who appear when no berries are ripe; and, of course, the problem of enough pickers when weather brings the crop along unusually fast.

Once a picker took off without paying for the berries, but Fred "took off" too, and collected. Then, too, there was the time when he found a pile of pods in the pea patch; obviously the bushel of peas which the customer paid for had shelled peas in the bottom, with a few peas in pods on top. Fortunately most people are honest.

Before berries can be picked they must be grown—and it's no easy job. Success as a grower depends on meticulous attention to details, and even then the weather can bring a crop failure.

Three hazards in berry growing have been eliminated: a virus disease can cut production, but Fred buys certified virus-free plants, setting 5,000 per acre. A dry year now holds no hazards because a farm pond provides water for irrigation when needed.

The third hazard is a wet spell at picking time. Too much rain is still bad, but a spray program controls the organisms that destroy ripe berries, thus minimizing the problem.

But let's start at the beginning and briefly outline how Fred grows his berries.

The year before the berries are set winter barley is cut in July, then buckwheat is sowed, and plowed under in the fall.

Fred can remove as much mulch in a day with this rig as he could in two weeks by hand. It's a windrow turner with hydraulic height control.

The next spring, berries are set with a transplanter as early as the ground is ready, usually in April. Fred says that purchased plants that have been in storage start off better than freshly-dug plants. At this time fertilizer is broadcast, along with aldrin to control grubs. In 1963, Fred used (on 7 acres) a mixture of fertilizer that included 2,500 pounds of 16-8-8, plus 1,000 pounds of 20 percent superphosphate, along with 105 pounds of aldrin. Varieties set are mostly Sparkle, Catskill and Early Dawn, along with a few promising new varieties in the hope of finding something better.

Then comes the battle of the weeds. Chemical weed control is used—Sesone being one product—but it's a bit expensive, and ineffective unless it rains. In the fall, 2,4-D is used to control yellow rocket and chickweed on berries newly set that year—at a maximum of 1/2 pint per acre.

But cultivation is still the chief weed control—the berries are given 8 cultivations and one, or sometimes two, hoeings. Quackgrass is always a problem, but dalapon, used as a spray before setting plants, is a big help in eradicating it.

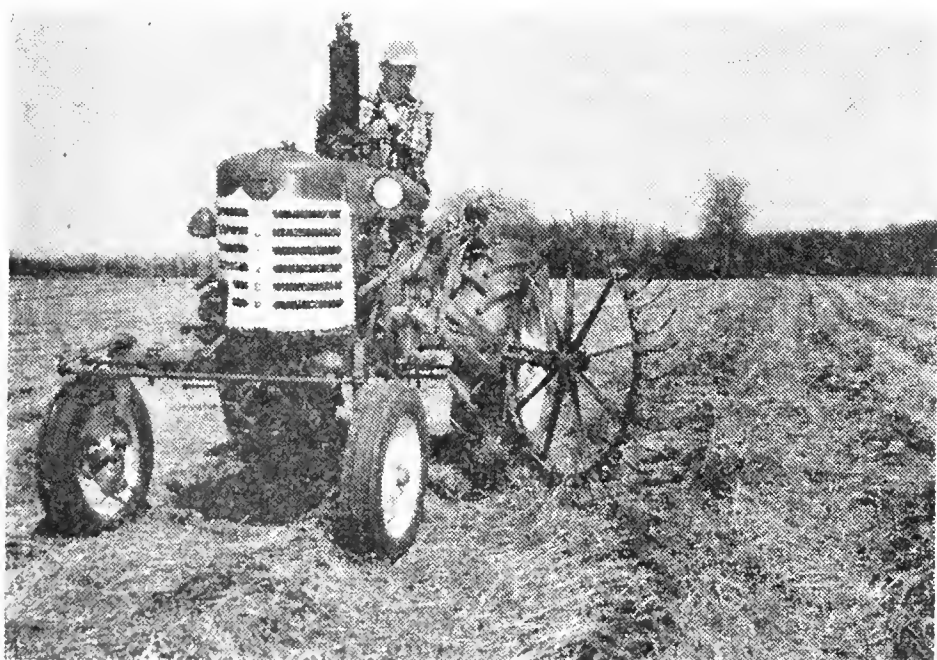
In the fall the fields are mulched with 3 tons of straw per acre. The straw is bought baled, the bales are pulled apart in the field, and then spread by machine. In the spring the straw is pulled off the plants and put between the rows by a single wheel rake pulled by the tractor. This is time-saving, doing in one day a job that took two weeks when done by hand.

Spraying has already been mentioned. Before the buds are open in the spring, captan and toxaphene are applied—the latter for spittlebugs. Then comes four to six sprayings with captan to control rot. Spraying is continued right up to picking—or even between pickings.

To back up a moment—the fields are usually worked with a special hand tool having a long blade in the spring of the harvest year, and an application of superphosphate is made. Nitrogen applied in the harvest year tends to

(Continued on Opposite Page)

— American Agriculturist, June, 1963



STRAWBERRY PICKERS PICNIC . . .

(Continued from Opposite Page)

produce foliage and to reduce berry quality. This year, Fred applied a liquid fertilizer with a 2-20-10 analysis about the middle of May.

Finally comes the harvest. An advertising program is followed, using radio and local papers covering a hundred mile radius.

Fields are designated for picking, and at times there are as many as a hundred people in a patch. Roughly, there are three groups a day—morning, afternoon and evening—so Fred may have as many as 300 customers a day. An interesting side light is the fact that several girls last year picked berries and then resold them, thus making a bit of "spending money."

PLAN NOW — BUILD LATER

(Continued from Page 6)

Engineering Department at Cornell has other Plan Lists containing designs for a wide variety of structures and equipment. Requests for house plans should be directed to the Department of Housing and Design, New York State College of Home Economics, Martha Van Rensselaer Hall, Ithaca, N. Y.

STALL BARNS— COMPLETE PLANS

Plan No.	Barn Width and Type	Illustrated and Cow Capacity
72325A	36'-2 row	20,30,40,58
72325B	36'-2 row	20,32,40,48
72325C	36'-2 row	20,32,40,58
72325D	26'-2 row	20,32,40,58
72325E	36'-2 row	20,32,40,58

(the above are available from the Department of Agricultural Engineering at Cornell)

COMMERCIAL ORGANIZATIONS FROM WHOM PLANS MAY BE OBTAINED

Aluminum Co. of America
741 Alcoa Building
Pittsburgh 19 Pa.
Koppers Co. Inc.
1301 Koppers Building
Wood Preserving Div.
Pittsburgh 19, Pa.
Libbey-Owens-Ford
Glass Co.
608 Madison Avenue
Toledo 3, Ohio
Reynolds Farm Institute
Reynolds Metal Co.
2000 South Ninth St.
Louisville 1, Ky.
Hoard's Dairyman
Ft. Atkinson, Wisc.
Kaiser Aluminum, Inc.
Building Products Dept.
919 N. Michigan Ave.
Chicago 11, Ill.
Portland Cement Assoc.
250 Park Avenue
New York 17, N. Y.
Timber Engineering Co.
1319 Eighteenth St., N. W.
Washington 6, D. C.



"Edith's busy restoring an antique."

As you can see, customers leave a sizable chunk of cash on a busy day. But lest you rush out and set a few acres of berries, remember the costs that have been accumulating for plants, spray materials, fertilizer and labor.

Incidentally, Fred has no full-time hired man. He hires day help in summer, with, of course, the peak period coming during harvest, when the working day is from sunrise until dark.

Yes, the berry business has its good points and its problems, but Fred Smith said nothing about getting out. He knows how to grow them, and his "pick 'em yourself" marketing system is working. If you want to see for yourself, drop in at his farm during the last half of June. And bring along a few baskets; you

won't be able to resist harvesting some for yourself.

SOIL "RECIPES"

PLANTS of excellent quality and remarkable uniformity are being grown by scientists at Cornell University in mixtures of peat moss and vermiculite, perlite, sand, and nutrients. Professors Raymond Sheldrake, Jr. of the Department of Vegetable Crops, and James W. Boodley of the Department of Floriculture and Ornamental Horticulture, report excellent results with tomatoes, cabbage, melons and peppers, and with petunias, marigolds, lobelia and geraniums in mixtures of peat moss and vermiculite or peat and perlite.

The system was first developed at the University of California.

TESTING NEW FRUITS

ANYONE interested in experimenting with new fruits may, for an annual fee of \$2.00, become a member of the New York State Fruit Testing Cooperative Association, Inc., Geneva, New York.

This Association was organized in 1918 for introducing new fruits recommended as worthy of trial by the New York State Agricultural Experiment Station. The fee covers expenses in connection with the nursery stock provided for testing, and membership has now reached about 5,000—representing 48 states and many foreign countries. Each member receives the annual catalog (most attractive and interesting) and notification of the annual meeting held at Geneva each September.



NEW insecticide registered for ALFALFA

Gives best control at lower cost. Long famous for low-cost insect control in fruit orchards, Guthion is now registered for alfalfa and clover. It gives extremely effective control of alfalfa weevil, leafhoppers, pea aphids, mites, alfalfa plant bug, fleahoppers, lygus and spittlebugs.

One spray per cutting. Control is good because a *single spraying* is effective . . . you can even spray stubble and get good control. Because you spray less often, Guthion gives you a lower cost-per-acre than any other material. And, Guthion-treated legumes can be fed green or dry to dairy animals with complete safety.

Ask your dealer about Guthion . . . the newest chemical for more profitable hay.

4982



**CHEMAGRO
CORPORATION**

KANSAS CITY 20 • MISSOURI

They're Back in the Saddle Again!

All across the rural areas of the Northeast the pleasure horse population is booming!

By ISA LIDDELL

HERE IN OUR northeastern country the horse is enjoying a great revival. While tractors have taken the place of horses on farms for heavy work, the number of horses for pleasure and sport is increasing by leaps and bounds.

Lester Hallman, Applied Research Specialist with the G.L.F. Exchange at Ithaca, New York, and president of the Northeastern Appaloosa Association, estimates the horse census in the Northeast about as follows, taken from the 1960 USDA census: Connecticut, 4,000; Maine, 8,000; Massachusetts, 7,000; New Hampshire, 5,000; New Jersey, 8,000; New York, 40,000; Pennsylvania, 49,000; Rhode Island, 1,000; and Vermont, 10,000.

However, Mr. Hallman comments: "There is a general feeling in the horse world that the 1960 figures in the Northeast are currently too low, since there has been a steady growth in horse activities, such as riding, training, shows, horse sales, 4-H horse clubs, horse associations, etc."

Profitable Hobby

Many people are finding that horses can become a profitable hobby or business. They own, raise and train horses and ponies to supply the demands of people who ride for pleasure and recreation.

Anyone interested in horses knows the story of the Morgan horse, bred from a single stallion who didn't even have a name, and was called after his owner, Justin Morgan. The blood of this small but powerful stallion flows today in fine, handsome pleasure horses in every state.

Of increasing interest is the Quarter horse, famed for his speed, his lightning-fast reactions—the favorite of the cowboys and rodeo performers—famous, too, for racing the short distances that give him his name. According to Dr. M. E. Ensminger of Washington State University, in 1962 there were 251,000 Quarter horses in this country.

Then there are the so-called color horses, the Palomino, the Pinto, the Albino, and the Appaloosa. The latter were bred by the Nez Perce Indians in the Northeast long before the famous Lewis and Clark Expedition. They are noted for gentleness and easy gaits.

It isn't so long since most Land Grant colleges were in the draft or work horse business. They used them for teaching and for research programs in animal husbandry as well as for working on the college farms.



The coming of mechanization to the farms sounded the knell of the draft horse at college, and for years many universities were without horses. But now the tide has turned, and riding horses on campus bid fair soon to be as numerous as were the draft horses about two decades ago.

How To Choose

The selection of a suitable mount means consideration of a number of things. The right horse for you depends on many things, for example, your age, your weight, how much riding experience you have had, your general dependability and judgment. For a young child, a Shetland pony is a good answer. They are not costly to keep, are easy to ride, can be stalled and ridden in a small area, and make affectionate pets.

In choosing a pleasure horse, older, well-trained horses with good dispositions are much safer for beginners. Those with more experience will enjoy starting with a weanling colt and developing their own mounts.

A horse with a good disposition can be taught what is expected of him. He responds to the commands of the rider, doesn't become frightened or angry, and remains relatively calm in most situations.

Second only in importance to the horse's disposition are his feet and legs. The legs should be reasonably straight and sound if the horse is to give you a safe, comfortable ride. A horse with a wide, deep chest has more vigor and stamina than a shallow, narrow-chested one. A horse with a short, well-muscled back and a long underline has more strength to carry a rider, and more room for its feet and legs to work without interfering. A well-muscled hindquarter provides power; a thick-necked, steep-shouldered horse tends to have a short stride, and that makes for rather rough riding. Prominent withers keep the saddle from turning when mounting and dismounting.

Good horses may have poor heads, while horses that are worthless may have attractive heads—so don't count too much on appearance. What a horse can and will do is more important than the impression he makes on the eye. The important features in a pleasure horse head are "a good eye," alertness, gentleness, and some signs of intelligence.

So much for pleasure horses. Of course, if you are eyeing the show ring, buy an American Saddlebred. If you want the thrill of

(Continued on Opposite Page)

Publications on Horses

Bulletin No.	Bulletin Name	University
58-4	The Pleasure Horse	Univ. of Conn. Storrs
A 354	Horsemanship	Univ. of Mass., Amherst
L 207	N. J. 4-H Project	New Jersey Agricultural Experiment Station, New Brunswick
J 115	Horsemanship Opportunities	N. Y. State College of Agriculture, Ithaca
C 490	Your Pleasure Horse	The Pennsylvania State University, University Park
182	The Pleasure Horse	University of Rhode Island, Kingston
F 2127	Light Horses	Supt. of Docu'ts., U. S. Govt. Printing Office, Washington, D. C.

Books

"Horses and Horsemanship"
—M. E. Ensminger
"The Western Horse—Its Types and Training"
—John A. Gorman
(Both books published by Interstate Publishers, Danville, Illinois)

Most of the bulletins mentioned are free to state residents; there may be a nominal charge for others. The USDA bulletins are sometimes free, occasionally have a nominal charge.

(Continued from Opposite Page)

jumping, your horse should be the long-legged hunter type. If you want a horse to win races, you should, of course, get a Thoroughbred.

A horse needs a clean, dry and comfortable stable, with protection against extreme cold and heat. Unless he is ridden regularly and frequently, there should be an exercise pen or corral. If there is also a small pasture for summer grazing you are lucky—for that will help solve your summer feeding problem.

In caring for horses at present, alfalfa hay is being recommended as a part of the roughage ration because of its high protein and calcium content and its value as a source of vitamin A. Because it tastes good, horses have a tendency to eat too much of it, so should be fed a small quantity only, increasing the amount gradually until it constitutes up to half of the roughage allowance.

Feed Best Hay

Nothing but the brightest, cleanest hay should be fed. Anything with mold or spoilage should be carefully avoided, as it may cause colic. Oats are the most popular grain, and may well constitute a large part or even all of the concentrates fed; they may be fed whole, rolled, or coarsely ground. Wheat bran is a very popular feed in combination with grains.

A number of the feed companies have developed complete horse rations with which no additional roughage need to be fed, which simplifies feeding a great deal.

The amount to feed depends on your horse, his size, appetite, and the work he does. Horses are like people; some need more food than others; some will eat too much if

they get the chance and become fat. The best guides to correct feeding are experience and the looks of the horse. He should be neither bony nor bulging; his flesh should be firm. Regular small feedings are better than irregular large ones; two per day, morning and night, are enough under most circumstances.

Always be sure that plenty of good, clean water is available, at least twice daily after eating.

Grooming — combing, brushing and rubbing — is a necessary part of the care of your horse. It requires time and energy, but nothing else soothes tired muscles so well or puts such good gloss on his coat. Most horses enjoy the grooming and learn to stand quietly. Use a currycomb, a stiff brush, and a rub

rag. You'll learn how he likes it, gentle or brisk. He should be groomed each morning, whether you ride him or not—and again after he has worked out.

4-H Programs

One of the greatest sources of interest in riding horses are the 4-H horse programs going on in almost every state. Each year hundreds of young people become interested in horses and ponies. Whether it is a young foal to be raised and trained, or an older horse already partially schooled, each presents a challenge to the boy or girl who owns it. The youth of America are looking for chances to demonstrate their talents; the horse, one of man's oldest companions, provides them with many opportunities to test their

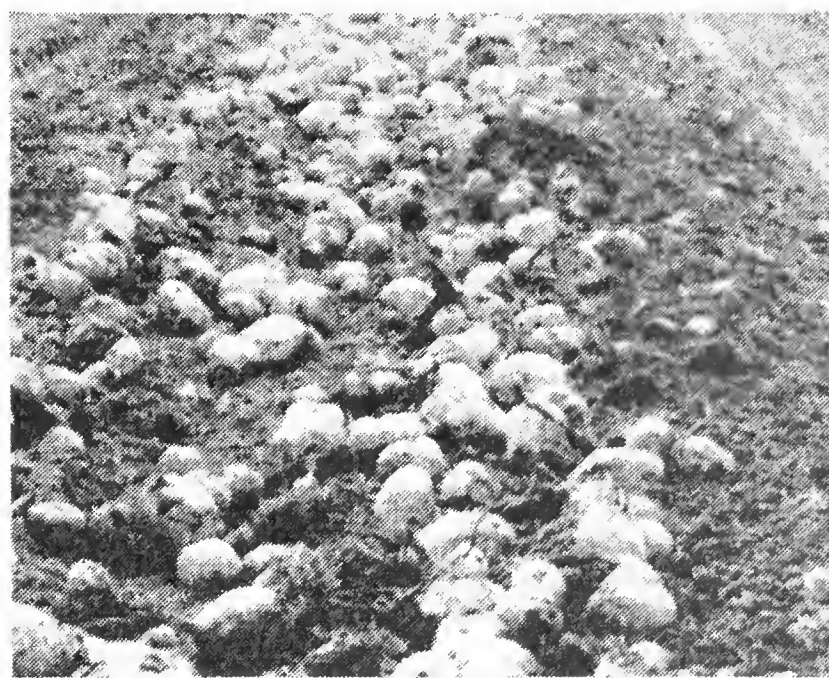
skills. There are no dull moments for boys and girls enrolled.

The 4-H program horse club members find opportunity for self-expression and development through practice and demonstrations. Horse shows can be the high spot of the year for the club members, who work hard for months to perfect their horsemanship. And the friendly rivalry of the club show is an excellent way to develop good sportsmanship.

Then, too, who can ride through the woods without developing a love of nature, an appreciation of the beauty—and the value of trees, forests, streams? Which of us can enjoy these wonders without beginning to realize the responsibility we have to maintain them for coming generations?



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you higher yields as well as reduced tuber damage from nutgrass rhizomes; and *three*, you harvest a cleaner crop—with much less labor and a great decrease in cutting and bruising of tubers at harvest.

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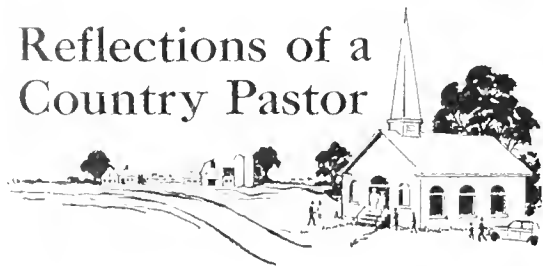
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GROW WITH STAUFFER CHEMICALS

Reflections of a Country Pastor



Spot On Perfection

ONE DAY a young man was going through the family rose garden searching for a blossom suitable for his "best girl." He passed over many blooms perfect except for a "spot" on this petal, a cutworm's mark on a leaf, an insect's bite out of an outer petal. "Are you going through life like that," queried a younger brother, "passing perfection because of a tiny blemish?"

Are you obstructed by a critical attitude toward persons or life? How was the speaker? "All right except a 'raspy' voice." Did you enjoy the play? "O.K.—but the 'lead' was awkward!" This is a tough world for perfectionists, who see the one percent of bad versus the ninety-nine percent of good.

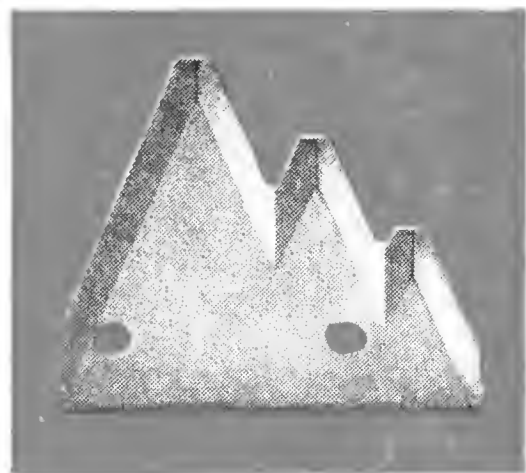
Often we are blocked in our capacity to enjoy because of a superficial flaw. No matter how beautiful the character, a mole on the chin cancels all else; the near-perfect musical rendition is ruined by one "false note"; the champion skier's achievement is depreciated by lack of "form."

Suppose we put ourselves on trial, force our minds to see, to appreciate and become so absorbed in the good that the preponderant excellence blanks out the defect!

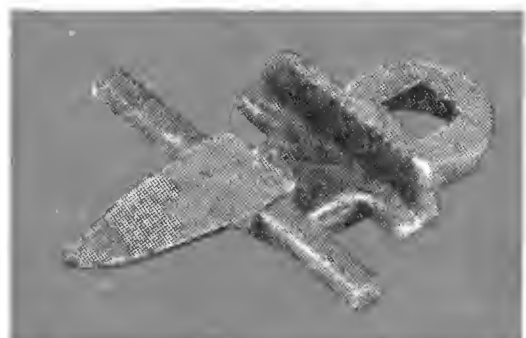
—Arthur Moody

END MOWER PLUGGING!

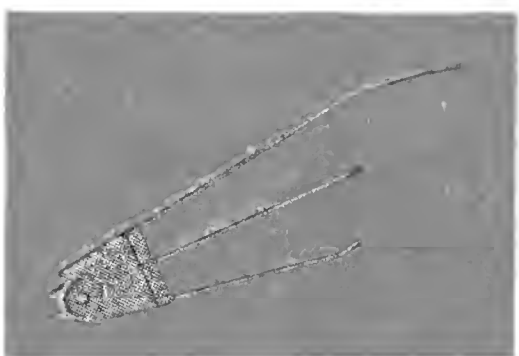
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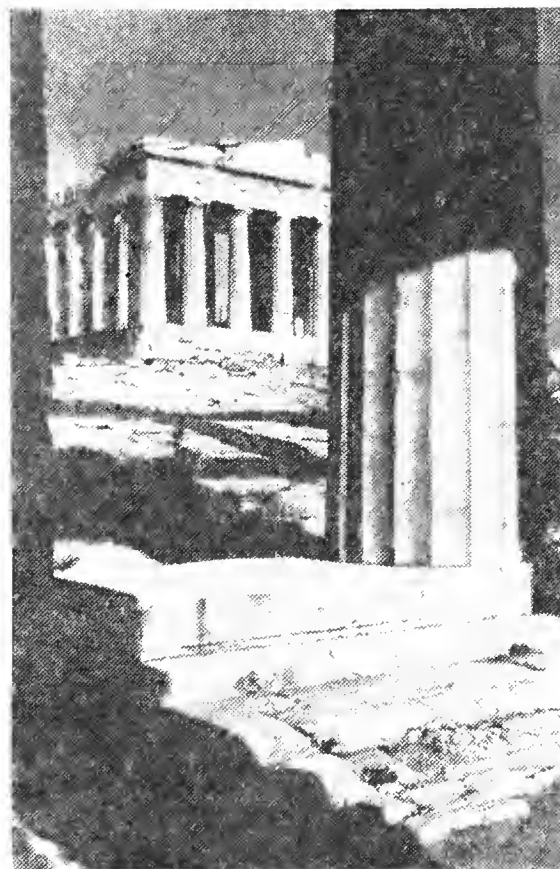
INTERNATIONAL HARVESTER



MEDITERRANEAN CRUISE

Sept. 12 - Oct 24

The Parthenon on the Acropolis at Athens was built nearly 500 years before the birth of Christ.



THERE'S SOMETHING irresistible about a Mediterranean Cruise, and when it's combined with a tour to the Holy Land, it's absolutely impossible to find words for an adequate description. Just think of seeing with your own eyes all the wonderful and fascinating places you have read about and always wished you could visit! And when you go with a friendly American Agriculturist party, you are assured of the happiest, most carefree kind of a vacation imaginable.

Next September you can take just such a trip with us, one that will fulfill every dream of travel you have ever had. After a relaxing, ten-day voyage across the Atlantic on the SS Independence, we'll spend two full weeks in those enchanting, sun-drenched lands that border the blue Mediterranean, the cradle of Western civilization.

The long-ago past becomes real to you, as you see the Western world's most celebrated and oldest cities with their art treasures, ancient architecture, olive groves and vineyards; twisted pines and leaning cypresses, shaped by centuries of wind. The dates are September 12 to October 24 . . . six wonderful, unforgettable weeks.

A few of the places we will see on this vacation are Casablanca, Gibraltar, Naples, Capri, Pompeii, Rome, Athens, Istanbul, and Beirut. In Egypt, we will visit Cairo, the Pyramids and Sphinx, and the Holy Land trip will include Jerusalem,

Bethlehem, Mount of Olives, Jericho, and many other Biblical scenes — the River Jordan, Garden of Gethsemane, Pilate's Judgment Hall, and the home of Mary and Martha in Bethany.

Next will come the modern city of Tel-Aviv in Israel, then Nice in the heart of the French Riviera, and finally Barcelona, Madrid, and Lisbon. Our homeward trip will be by air from Lisbon to New York on the afternoon of October 24.

American Agriculturist tours are truly "all expense." We include everything that we possibly can — all transportation, hotels, meals, sightseeing, all tips, baggage transfer, and of course expert escort service. To get detailed information, including cost of the all-expense ticket, send today for the illustrated itinerary. We hope very much that you will come with us, and we know if you do, you'll have one of life's greatest and most thrilling experiences.

Fall Foliage Tour

Next month we will tell you about our Fall Foliage Tour (October 6-20) through New England, Quebec, and the Maritime Provinces. This will be an extremely low-cost tour, similar to the ones we had in 1959 and 1960, which were very popular. Ask for this tour folder also when you write for the Mediterranean Cruise itinerary.

GUARD YOUR PETS

WITH ALL the attention that is given to livestock health, the health problems of the farm dogs and cats sometimes get overlooked.

The American Foundation for Animal Health warns that distemper kills many dogs and cats and causes chronic illness in many more. Something to remember is that the disease in cats is caused by a different virus than that which attacks dogs.

Watch out if your dog shows watery or squinting eyes and has a poor appetite. Later, the animal will become sluggish, may vomit, and will become extremely thirsty. Cats, too, have a great desire for water when afflicted with distemper, completely lose their appetites, and show extreme depression. The disease strikes very suddenly with them, and may cause death quickly.

So, if your dog or cat show warning signs, have them checked by your veterinarian just to be sure. Better yet, have your pets vaccinated to prevent getting the disease.

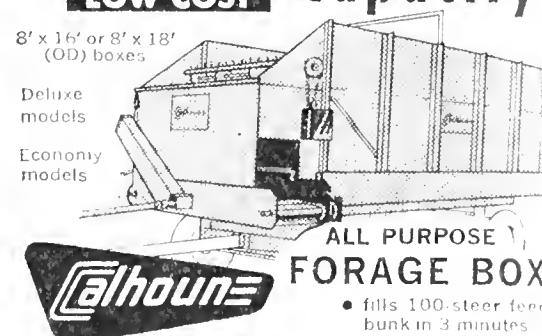
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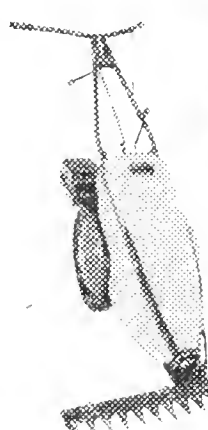
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Fall Foliage Tour
(October 6-20) —

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Dorothy and Bob Kime check the "books."

Records Guide Management

By Hugh Cosline

OUR FARM accounts show us that we must get good crop yields and good milk production if we expect to pay the bills and have a reasonable profit left."

This was the comment of Dorothy Kime, who keeps the figures on a farm near Geneva, Seneca County, New York.

The farm has 300 acres, with 40 producing Jerseys (plus some young stock), and is operated by Dorothy's husband Bob and their son Edward (20). Until he retired recently Bob's father, Frank, did considerable light work.

Production Up

Bob brought out several ways in which production has been increased. So far as the herd is concerned, it's a question of breeding, feeding, and management. Back in 1952 the herd average was 7,860 pounds and 417 pounds fat; by 1961 this had been raised to 9,388 pounds of milk and 499 pounds of fat. The present herd average is 10,379 pounds of milk and 545 pounds of fat. The milk from the herd goes to a local market at a premium price.

In commenting on DHIC records, the Kimes said:

"DHIC has benefited us, and helps us with herd management. First, it enables us to select the cows that are next in line to be culled out, without any question, guesswork, or sentiment. We have tested for about 21 years, and by continually watching the records, we have and are culling out families that are short-term milkers, or tested too high, with lower milk production than our herd average. We raise a lot of heifers, and therefore when they are ready to freshen the less desirable ones go.

"We feel that DHIC testing is largely responsible for some of the latest records on first-lactation heifers. For instance, Luke Designer Brenda, 10,610 pounds of milk, 532 of fat; Star Luke County Poppy, 9,784 milk, 532 fat; Star Luke Moor Rose, 9,358 milk, 510 fat; all 305 d, 2 x.

"The recommended feed guide keeps us up to date on the correct amount of grain each cow should receive. I know we are very apt to overfeed cows that are slackening off, and not give quite enough to the individual cow producing the most. This part of DHIC alone we feel is valuable enough to pay the monthly cost.

"DHIC records have always been very valuable in helping us to select a good potential herd sire. We have proved six bulls, all with proofs between 487 fat and the latest proof of 564 fat and 10,506 milk on Lew Land Buster Star, purchased as a calf from Burdette Lewis, Ludlowville, New York."

Better feeding of the cows is pri-

marily from roughage. No green-chop is fed, but pastures are clipped as soon as possible after the cows are taken off. The pasture is divided into seven fields, and the cows are turned into a new field every five or six days. "It's no trouble to tell when they should be moved," said Bob. "They get uneasy, and if they hear the pickup truck coming they crowd around the gate, which they know I am going to open to let them into a new pasture."

The grain is homegrown except for a high protein supplement. A custom mill stops in every Thursday, grinds a week's supply, and blows it into a bin. The homegrown grain is corn, oats and some Hudson winter barley, which grows well on fields that have good drainage.

The use of more lime and fertilizer has been mainly responsible for increased crop yields. "Before I bought this farm," said Bob, "I used to combine wheat on a custom basis, and I doubt if we ever harvested a yield of thirty bushels to the acre. Now we aren't satisfied unless we get 60 bushels—but it has taken ten years to bring the yield up to that figure."

The records have also shown that the total gross income was a bit low for the labor force, and one step that was taken was to buy a combine and do considerable custom work. An added dividend is the ability to get the combining done on the home farm at the right time.

Needed Lime

This farm is located in an area considered to be well supplied with lime, but soil tests showed that lime was lacking—a lack that has been supplied. A complete test brought other information, too. As a result, more fertilizer has been used and, following the nationwide trend, a higher analysis fertilizer. In 1961, over 16 tons of fertilizer was used and 50 tons of lime.

Anyone who has studied cost-cutting inevitably comes up against a problem of equipment—particularly what and how much to buy. And so far as replacements are concerned, the records show the cost of repairs, which serves as one good measure of when to trade.

In addition to the combine already mentioned, a portable mow conveyor for hay bales was bought, which Bob says is as good as two extra men in getting the hay into the barn. And let's not forget a new pole barn for heifers built three years ago, which cuts chore time!

Farm accounts are frequently neglected, with the excuse that there isn't time. In recent years the income tax regulations have made some records essential, and a little more time given to keeping more complete records is invaluable in helping to make management decisions.



MILK HEARINGS

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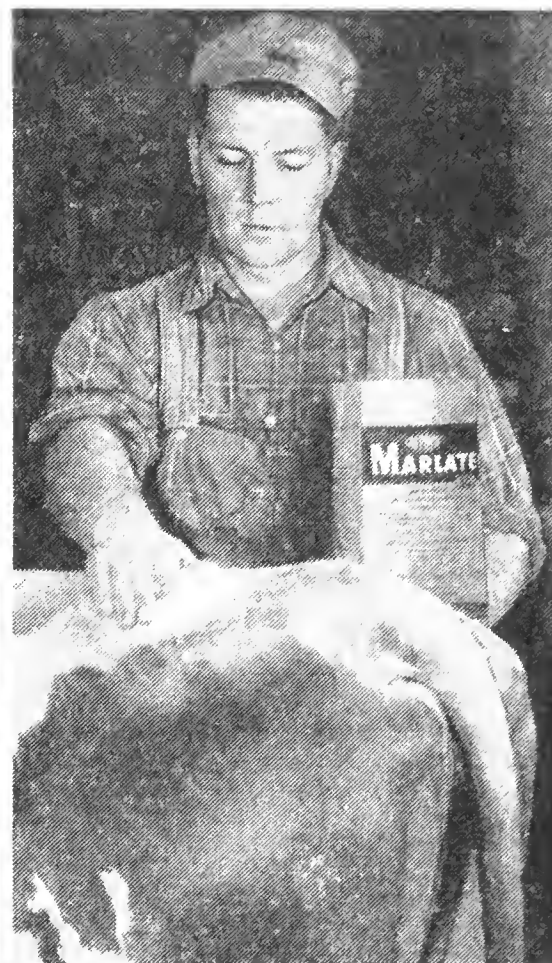
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Readying The Combine

By TOM CLAGUE

LITTLE more than a generation ago, in the day of threshing rigs, the thresherman was one of the elite. Although his art was not quite mumbo-jumbo, it was mysterious enough that ordinary workers—pitchers, rackmen, grainmen, stackers—were sure that if they ever got to be threshermen it would take years and years.

Times Change

Today, everybody who operates a combine is his own thresherman, plus a lot more. He is the "tractor man"; he must be the "grain man" and watch the tank; he must do an accurate job of driving, and know when to take only a partial swath. And one of the most important parts of the job is done beforehand—getting ready to go to the field. Proper readying can save the most valuable time of the season—harvest time—through eliminating needless breakdowns. And it can save grain that could be lost because of leaks or damaged flaps.

First, get out the manual and go over it thoroughly. It will help you remember your combine better before you start to work.

If you have a pto machine, check the power shaft—universal joints, shields, etc.—to see that they are sound.

If your combine has an engine, get it ready to run again. Drain out the anti-freeze which **should** have been put in to prevent rusting inside the engine during the winter. Put in new engine oil, and a new filter, if any. Because of the dust involved, check the air cleaner; clean it, checking carefully for leaks, cracked hoses, etc. Only a few hours of use in heavy dust with a faulty air cleaner will ruin an engine. Be sure it has the proper amount of oil in it. And in the interest of easy starting and developing full power, check spark plugs and points and replace if need be.

Give the combine a complete lubrication "by the book." Look for possible trouble—check all bearings, including all sealed bearings, which you don't inspect during regular lubrications. Make a list of parts you need. Make sure everything's "solid."

Check belts, sheaves, chains, sprockets. If belts and sheaves look like they'd fail before the season's over, put them on your list; the same goes for chains and sprockets. On belts and chains that are satisfactory, set the tension properly. Belts should have been loosened at time of storage. Remove links from chains as needed; check elevator chain for tightness; if loose, this can cause a lot of wasted time when it breaks.

Look over conveying canvases for damage; check grain flaps inside the machine. Damaged flaps can easily allow grain to "go right on through." Rodents often move into the combine for the winter, and they can chew up flaps pretty badly.

Test cylinder bars. If replacement is necessary, replace in complete sets, or in pairs if there is not very much wear. Check the adjustment of the concave to the cylinder.

Check straw racks, grain pan, shoe and shoe sieve, to be sure condition is satisfactory, and all working parts. Look for rust on sheet metal—holes may develop and cause problems. Protect with paint if this seems necessary.

Go over the cutting mechanism. Straighten the knife or sickle; replace sections, if necessary. Check guards for alignment, knife clips for tightness. Check pitman. Check register of knife sections with respect to the guards.

Check the reel. Make sure bats are in sound condition so they can hold grain against the cutter bar until it is cut off.

Trial Run

When you've completed your check-up and everything is lubricated and in good condition, start the machine and run it slowly. Some manuals recommend turning the machine by hand until all chains and belts have completed a full cycle. Listen carefully as it runs at slow speed for 15 minutes or so. If everything sounds all right, it's ready for the field.

Consult the instruction book and set for the crop you're going to harvest first. Set the cylinder speed, concave clearance, wind blast, etc., then tailor to conditions.



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June Forage Stretchers

*By W. L. Griffeth and R. E. Krenzin

NEAR-DROUGHT conditions have prevailed throughout the spring over much of New York and adjoining states, according to Dr. A. Boyd Pack, New York State Climatologist for the U.S. Weather Bureau, with headquarters at Cornell University. This low rainfall, following the severe 1962 drought, will no doubt cause short first-cutting hay crops in many areas of New York, Pennsylvania, New Jersey and New England, unless relieved by heavy rainfall in May. At the time of this writing (mid-May), the drought appears to be continuing over much of AMERICAN AGRICULTURIST territory in southern and southeastern New York, northern Pennsylvania and adjacent states.

Here are some things you can do to provide roughage "insurance" for dry weather:

- Additional acres of short-season corn hybrids can be planted up to the middle of June. Good seedbed preparation is particularly important to conserve moisture and to insure rapid germination of the seed.
- Careful chemical weed control on corn will help to extend limited moisture supplies. During the 1962 drought, plenty of fertilizer and good weed control made the difference between success and failure on thousands of corn fields.
- Immediate planting of sudan-grass or one of the sudan-sorghum hybrids should provide forage by late July.
- Early-planted oats should be ready for pasture in late June, and for silage or hay in early July.
- Moderately early harvest of first-cutting hay will give the most yield for the available moisture, and allow time for good second growth during June and July if moisture is available.
- Fertilization of good legume stands after the first cutting will help to extend their life and give additional hay during the year of application.
- Providing we get good rains, leaf-hopper control on the second and third cutting will be helpful in increasing the yield and quality of hay where serious infestations of this insect occurs.
- Controlling the alfalfa weevil is a "must" for alfalfa production in New Jersey, southeastern New York, and parts of Pennsylvania and New England. Check with your county agent for specific recommendations for both weevil and leaf-hopper.

Grow Corn

Conventional row-planted corn is the most productive annual forage in terms of TDN per acre, the most flexible in methods of utilization, and is adapted to a wide range of climate and soil situations. For supplemental forage, high yielding short season hybrids may be planted as late as June 15 to July 1, depending on the length of growing season for the area. Use plant population and fertilizer rates regularly recommended for silage corn, along with a good job of weed control.

Greenchop feeding may be started when the corn plants are in the silk-

ing stage. At that stage the plants which remain in the field improve in quality and quantity every day due to grain formation and maturity. Depending upon needs, the earlier-planted corn can provide greenchop forage in August, as well as silage or grain later in the season.

Oats for Roughage

The oat crop can be a valuable source of forage during the critical mid-summer period. With good management, oats can be used as pas-

ture, greenchop, hay and silage. Removing the oat crop as forage usually increases the chances for a successful legume and grass seeding.

Grazing of oats should start when the plants are about 6 to 12 inches high and are rooted firmly enough so that grazing livestock will not pull plants out of the soil. The ground must be firm and dry enough to support animals without punching. Division of the field for rotation grazing can provide an extended period of forage production by making full use of the vegetative regrowth of the oat plant.

Due to the rapid growth and development of oat plants, greenchopping should start in the jointing and early boot stages. Greenchop may

continue during plant development through heading and early grain formation. Under good moisture and fertility conditions, the early greenchop areas may make enough recovery growth to provide additional forage.

The oat crop harvested soon after heading can be an important source of hay. Yields ranging from 2 to 3 tons per acre have been reported. Good quality oat hay would be rated only a little lower in nutritive value than grass-legume hay. The use of a hay conditioner can contribute a great deal to the curing and quality of oat hay.

The oat crop harvested as silage or hay produces about twice as

(Continued on Page 31)

in New York State...

*DHIA RECORDS PROVE IT PAYS TO BREED WITH ABS

ABS DAUGHTERS COMPARED TO ALL OTHER A. I. DAUGHTERS

	Holstein		Guernsey		Jersey		Brown Swiss	
	Milk	Fat	Milk	Fat	Milk	Fat	Milk	Fat
ABS Daughters, New York	12,901	477	8,935	435	8,353	430	11,278	453
All other A.I. Daughters, New York	12,484	453	8,536	405	7,881	409	10,498	439
ABS Superiority	+ 417	+24	+ 399	+30	+ 472	+21	+ 780	+14
Extra income per cow per year with ABS Daughters. Milk at \$4 per cwt.	\$16.68		\$15.96		\$18.88		\$31.20	

* Data from USDA Report — ARS-44-110-1 issued December, 1961, and covering all reported New York records available for the 1956-1961 period.

These records have been processed by the USDA on a 2x. 305 day, mature equivalent basis. Genetic build-up through the Proved Sire Breeding Program of American Breeders Service is clearly indicated . . . giving differences that you can put in the bank!

Multiply these differences by the number of cows in your herd . . . whatever the breed . . . and you'll see how much further ahead you could be with ABS. For example, with a 50-cow Holstein herd of ABS Daughters you could have more than \$800 per year extra income . . . very little difference in feed, barn room or labor. Just better cows!



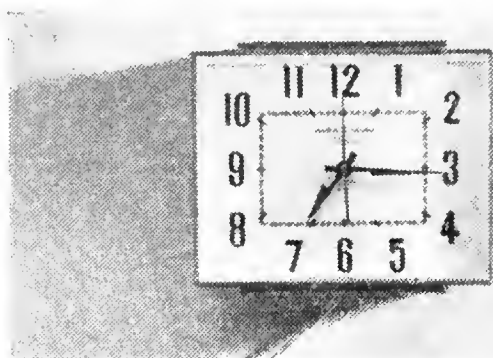
Get More Milk per Cow through Genetic Build-up with ABS.

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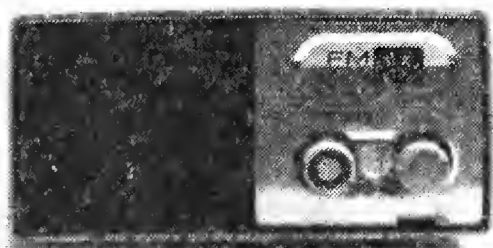
111 Chestnut Street

Oneonta, New York

* Agronomy Department, Cornell University, Ithaca, N. Y.



Two Essential Harvesting Tools!!



Your clock and radio are two essential harvesting tools, from the day the first field of early-cut hay is mowed in unpredictable May, through the day the last field of late-maturing corn for grain is picked in blustery December. And that same handy harvest help is at your finger tips for every crop from Apples to Zinnias.

Your best radio guide to good harvesting weather is WEATHER ROUNDUP at 6:25 and 7:15 A.M.; 12:15 and 6:15 P. M., over these stations.

FM STATIONS

Auburn	WMBO-FM	96.1 mc.
Binghamton	WKOP FM	99.1 mc.
Bristol Center-Rochester	WMIV-FM	95.1 mc.
Cherry Valley-Albany	WJIV-FM	101.9 mc.
DeRuyter-Syracuse	WOIV-FM	105.1 mc.
Hornell	WWHG-FM	105.3 mc.
Ithaca-Elmira	WEIV FM	103.7 mc.
Jamestown	WJTN FM	93.3 mc.
Niagara Falls-Buffalo	WHLD-FM	98.5 mc.
Olean	WHDL-FM	95.7 mc.
Wethersfield-Buffalo	WBIV-FM	107.7 mc.

AM STATIONS

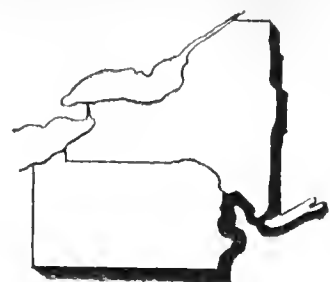
Auburn	WMBO	1340 kc.	Olean	WHDL	1450 kc.
Binghamton	WKOP	1360 kc.	Remsen	WREM	1480 kc.
Boonville	WBRV	900 kc.	Rochester	WROC	1280 kc.
Dunkirk	WDOE	1410 kc.	Salamanca	WGGO	1590 kc.
Elmira	WENY	1230 kc.	Saratoga		
Glens Falls	WSET	1410 kc.	Springs	WSPN	900 kc.
Gloversville	WENT	1340 kc.	Sayre, Pa.	WATS	960 kc.
Hornell	WWHG	1320 kc.	Schenectady	WGY	810 kc.
Ithaca	WTKO	1470 kc.	Syracuse	WHEN	620 kc.
Jamestown	WJTN	1240 kc.	Syracuse	WOLF	1490 kc.
Niagara Falls	WHLD	1270 kc.	Utica	WBVM	1550 kc.
			Walton	WDLA	1270 kc.

Northeast Radio Network



Brought to you at 7:15 A.M. by the
Cooperative G.L.F. Exchange, Inc.

News and Views from NEW YORK AND PENNSYLVANIA



Pea Combine — Robert and Richard Call, who operate a farm near Batavia, New York, are planning to use three pea combines this year, replacing their eight stationary vinders. The pea combines pick up the vines from a windrow and deliver shelled peas all ready for the washer; the vines are left in the field. In addition to the greater efficiency, the Calls like the idea of not having the vines to dispose of.

Beet Test Specialists from Cornell University are working on sugar beet production tests with county agents and farmers in eight central New York counties. Each of the 66 farmers is growing from 3 to 10 acres of the crop—a total of 270 acres—in plots planted between April 4 and May 4. Trials are being made to determine expected yields per acre and probable sugar content; these results will in turn form part of the basis for determination of whether a beet processing plant should be built in the area.

In addition to farmer test plots, Cornell researchers have 15 plots in Cayuga County. AMERICAN AGRICULTURIST will make another report on this situation in a coming issue.

Help for Tobacco Growers — New fertilization practices, new varieties, and better insect control have all helped to produce a larger tobacco crop in the Keystone State. So, at the request of the Lancaster Tobacco Cooperative, the Pennsylvania Farm Bureau Cooperative Association has initiated a marketing program to help the growers.

Raw Milk At Farms — As of July 1, the regulation in New York State prohibiting the sale of raw milk at the farm will be rescinded.

Art Contest — This year the New York State Exposition is again sponsoring a competitive art exhibition, which will include oil, water color, mixed media paintings, and sculpture. No pastels or crayon drawings will be accepted. Entries close July 26. A brochure containing complete details and entry forms can be obtained from Mrs. Helen B. Vandervort, New York State Exposition, Syracuse 9, N. Y.

New Milk — A few weeks ago a group of officials and their guests at the Department of Agriculture and Markets at Albany, New York, watched a machine reconstitute whole fluid milk from non-fat dry milk and butter. The machine was developed at the suggestion of Percy W. Dake, Saratoga Springs, New York. Dr. Robert F. Holland,

head of the Department of Dairy and Food Science at Cornell University gave much assistance in the research.

The process combines skim milk powder, butter and water, and results in a product that, according to the machine's developers, actually possesses all the characteristics of normal cow's milk. It is expected to help in the solution of the country's surplus dairy products problem, and to provide milk for undernourished peoples of the world.

Heifer Project, Inc. — Under this project more than a million animals of 18 kinds have been shipped directly to people in need in 60 countries. The work is supported by 17 Protestant denominations, Roman Catholics, Jews, service clubs, agricultural and other organizations. Contributions can be sent either through your church or organization or directly to Roger H. Cross, Central New York representative, Fayetteville, N. Y., or to Heifer Project, Inc., Upper Darby, Pa. Box 278.

Field Day and Show — The Empire State Potato Field Day, planned for August 14-15 at the Seligman Farm, Prattsburg, will include a Farm Equipment Show similar to those held last year at Alfred and Cobleskill. Stanley MacDougal, potato farmer and mayor of Prattsburg, is general chairman; H. J. Evans, Georgetown, is in charge of the trade show and exhibit. More details later.

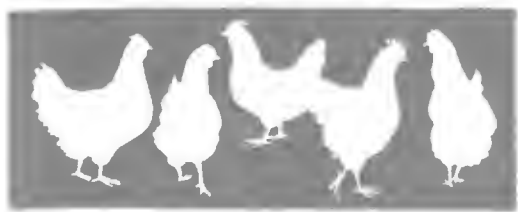
Cited — Among the educators cited by the Manufacturing Chemists' Association at its annual meeting, Dr. Ernst Berliner of Bryn Mawr College, Bryn Mawr, Pennsylvania, received a medal, citation, and check for \$1,000.

Electronic Age — Louis Dunkel, Oxford, N. Y. has 100,000 birds in multiple cages, and is now using an electric egg grader that includes the refinement of a blood spot detector. It grades and cartons up to 32 cases an hour with a work force of only 4 people.

Private Campgrounds — With the urge among American families for family camping, the State facilities have not been able to keep up with the demand. That's where opportunity steps in for private farm families who have land available. If interested, send for the new Cornell bulletin E-1112, entitled "Private Campgrounds as an Alternative Use of Land," to the Mailing Room, Stone Hall, Cornell University, Ithaca, N. Y. Include 25 cents to cover cost.

The executive committee of Eastern A. I. Co-operatives, Inc. Left to right: vice president Douglas Stanton, Greenville, N. Y.; president George Dudley, Litchfield, Conn. (a member of the American Agriculturist Foundation); and executive secretary and treasurer William Schaefer, Jr., Tunkhannock, Pa. Not present when the picture was taken was secretary-clerk W. R. Amidon, Concord, N. H.





POULTRYMAN LIKES WINDOWLESS HOUSE

WE KEEP 10,000 laying hens (3 birds per 12" x 16" cage) in a windowless house, using a stair-step system of cages so that all droppings fall to pits in the floor. Water spilled by the birds from the waterers fall into the pits and make the droppings a semi-liquid; a "side spreader" designed for handling liquids is used to put the material on fields.

A small tractor with blades attached is used to push the droppings out of the pits into the spreader. We clean every six weeks in winter and every eight weeks in summer, apparently because there is more rapid breakdown of manure in the pits during the summer.

The droppings "slurry" has to be spread pretty carefully on grass or the nitrogen in it will burn the meadow severely. In fact, we spread it thick on a hedgerow along the edge of one meadow and killed everything in the hedge. We have lightly topdressed pasture and meadows, though, and are pleased with results. It has to be handled a lot like liquid nitrogen solutions.

The poultry house is fully insulated and has a ventilation system consisting of two 36" and two 30" fans that have a total capacity of 3½ cubic feet per minute per bird. Last summer, when temperatures rose to 100°F. outside, the hottest recording inside was 82°F. During the following winter, when the thermometer stood at -24°F. outside, the lowest my indoor-outdoor thermometer recorded in the poultry building was 48°F. Last September, electric power was off 5½ hours, but we didn't lose any birds.

It takes less than three hours a day now to do chores (excluding cleaning) in this house—30 minutes to feed in the morning, 1 hour for my wife and I to gather eggs in the forenoon, another half hour to gather eggs in the afternoon, and 15 minutes to feed again. Alone, it takes me between four and five hours per day for regular operating jobs; not including the cleaning of dropping pits already mentioned.

We debeak both top and bottom mandibles and notice that feed troughs have to be kept fairly full or they won't eat. We replace all birds at once, rather than in stages. Sure, handling 20,000 birds is quite a job, but we hire some extra help. All in all, we like the building and cage setup very well.—*Philip Chaffee, VanEtten, N. Y.*

NEW POULTRY HOUSES IN NEW ENGLAND

AT THE SPRING meeting of the New Hampshire Poultry Growers Association, one of the events on the program was a panel on new poultry houses. Seven poultrymen reported on houses they have built this past year (all fully insulated and with many labor-saving devices) as follows:

Charles Nelson, Lancaster, built a two-story house, 36 feet wide, for 5,000 layers. The first floor has a central pit below the floor level, and feed and water are over this pit. On the second story the pit is above the floor. There are windows on the

south side, but the ventilation is entirely automatic. Litter conditions and production have been excellent.

Leslie Ward, Littleton, built a similar house but with only one story and an arch roof. His central pit is two feet below the floor, and feed and water are over it. He also has had good results.

Andrew DiAntonio, Nashua, built a house for 10,000 layers of three stories, 54 feet wide, with central egg collection. It has permanent windows, and is automatically ventilated.

Fred Jennings, Goffstown, built a one-story steel frame house for his 5,000 layers. He has pits on both sides, with the nests in the center. The house has windows for light, automatic ventilation, and belt egg collection.

Joseph Archambault, Hollis, has a similar house for 27,000 layers, but it is windowless.

Malcolm Atherton, Greenfield, built a "conventional" two-story house, 36 feet wide, for raising replacements and for laying hens. It has central hot air heating, window ventilation, and some forced intake ventilation.

Ralph Cornwall, Rochester, described their cage layer setup that will house 72,000 layers when filled. There are six houses for 12,000 layers each, and an egg handling room. The cages are four deck orbital type.

ATTITUDES TOWARDS EGGS

SOME FOLKS just plain don't like eggs for breakfast — but others feel that a substantial breakfast includes a couple of them. In between are those who hate to get up in time to prepare them.

So do consumer attitudes and opinions affect the egg market. A recent survey of 2,400 homemakers conducted by the U. S. Department of Agriculture shows that most eggs are served at breakfast; that a relatively small number go into main dishes at noon or evening meals, or into baking or other cooking. This would seem to reflect the present trend toward prepared mixes, etc.

In shopping for eggs, price was not reported as a key factor. The housewife was found generally to want a large size egg. Shell color is important to some, with a slight preference shown for white eggs over the brown.

POULTRY POINTERS

Cage Plans — Plans are available from the Agricultural Engineering Extension, Riley-Robb Hall, Cornell University, Ithaca, N. Y. for a 32 foot wide single story windowless cage laying house (Plan No. 800); a 40 foot clear span trussed rafter for suspended cage house (No. 805); and a single and double-tiered 3 x 4 feet double-row colony cage house (No. 808). No. 800 costs \$1.25; No. 805, 25 cents; and No. 808, \$1.00.

Avian Nephrosis — Sometimes known as "Gumboro Disease," is an acute, highly-contagious disease of young chickens characterized by watery diarrhea, ruffled feathers, trembling, and severe prostration. It appears with equal frequency through the year, and most severely affected are young birds up to five weeks old. Mortality rate is generally 1 to 15 percent, the disease lasts 5 to 7 days, and is most difficult to eradicate from a farm. No successful treatment has yet been found.



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For better livestock profits, use high-quality cattle sprays containing STABILENE fly repellent. Look for STABILENE in the ingredient statement on the spray container. It's listed as *butoxypolypropylene glycol*.

For more information on STABILENE, write Union Carbide Chemicals Company, Division of Union Carbide Corporation, 270 Park Avenue, New York 17, N. Y.

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Unadilla Silo Company Unadilla, N. Y.

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Classified Ads

PUBLISHING AND CLOSING DATES

July Issue Closes June 1

August Issue Closes July 6

September Issue Closes Aug. 3

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CHURCH GROUPS, CLUBS — raise funds quickly! Many new moneymakers. Free catalog. The Brisko Company, Shaftsbury 5, Vt.

BEAUTIFUL NYLON HOSE. Save 50%. Seamless regular or mesh 86 dozen pairs or with seams \$4 dozen pairs. Lovely beige shades. Sheermills, 21831-X Cloverlawn, Oak Park, Michigan.

MISCELLANEOUS

AFRAID OF LIGHTNING? Don't be—call us for free inspection. Survey and exact cost on complete lightning rod service. Morse-Collins, Inc., 148 Coddington Road, Ithaca, N. Y. Phone AR 2-8550.

STOP ITCHING Promotes healing of piles, psoriasis, eczema. "Roberts Reliable Salve" effective since 1888. Satisfaction guaranteed. 3 oz. \$1.00 postpaid. Roberts Pharmacy, Lisbon Falls, Maine.

CESSPOOLS, SEPTIC tanks, outhouses, clogged drains cleaned. Deodorized without digging and pumping. Sursolven® reduces contents, reclaims leachability. Old systems made to work like new. Free details. Electric Sewer Cleaning Co., 264 Lincoln Street, Allston 31, Mass.

PARTS FOR STOVES, furnaces; coal, oil, gas, electric. Empire Stove Co., 793 Broadway, Albany, New York.

QUICK-JOHN FOR septic troubles, outdoor toilets. New, exclusive enzyme-bacterial formula digests solids, grease, paper, etc. Ends backups, odors pumping, dipping. Harmless to packets. \$2.50 postpaid, 12, \$4.50. Money back guaranteed! Ryter Co., Mardela 20, Minn.

SONGPOEMS WANTED! Collaborate with professional songwriters equally. Share royalties. Songwriters Contact, 1619-G Broadway, New York 19.

KNOW SOMEONE LONELY, ill, shut-in? Send \$1.00 for four, friendly, personal, monthly letters. Give age, birthday, hobbies of recipient. Box 514-RW, American Agriculturist, Ithaca, New York.

ATTIC AND BARN 'Junk' worth money. Will buy almost anything pre 1910. Send brief descriptive list. Judah Webberman, 1 Grandview Ave., Monsey, New York. Phone 914 EL 6-3556.

CHUNK WOOD BURNING Furnaces. Daniels Mfg. Company, Hardwick, Vermont.

1000 QUALITY name and address labels—\$1.00. Ambassador Press, Box 1, Lynn, Mass.

WRITERS! BOOK manuscripts wanted. All subjects; fiction, nonfiction. Free brochures give tips on writing, publishing. Write Department 69-F, Exposition, 386 Park Avenue South, New York 16.

WANTED: TO BOARD small child with chances of adopting. Box 514-BL, American Agriculturist, Ithaca, New York.

NYLON Aircraft Tires for farm use, 14-15-16 inch. Dealer inquiries invited. Write Kepler Supply Inc., Fayetteville, New York.

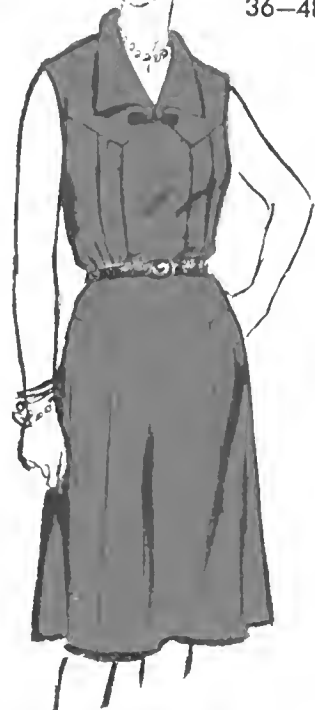
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ARTIFICIAL BREEDING Technicians. Are you interested in a position with the fastest growing A.I. Organization in the U. S.? Several choice locations are still available. Write to — Curtiss Breeding Service Inc., Danny Weaver, District Manager, Little York, N. Y.

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4904
36-48



4904. Bodice yoked and tucked, skirt smartly paneled. Printed pattern in Women's Sizes 36-48. Size 36 takes 4 yards 35-inch fabric. 35 cents.

9199. Box-pleated charmer with crisp collar, raglan sleeves. Printed pattern in Half Sizes 14½-24½. Size 16½ takes 4¼ yards 45-inch fabric. 35 cents.

9371. Band trim, perky bow spark the bodice above skirt of whirling gores. Printed pattern in Half Sizes 14½-24½. Size 16½ takes 3¾ yards 35-inch fabric. 35 cents.

9228. Smooth playsuit plus back-wrap skirt. Printed pattern in Misses' Sizes 10-20. Size 16 playsuit takes 1¾ yards 35-inch fabric; skirt, 2¾ yards. 35 cents.

7044. Springtime touch for towels, pillowcases, luncheon set—swift stitchery. Transfer of six motifs, 2½ x 13 to 6 x 12 inches. Directions for crocheted edging. 25 cents.

825. The luxury look! Knit jacket in large and small cables, using cloud-light mohair or other worsted. Knitting directions for sizes 32-34; 36-38 included. 25 cents.

7434. Teenagers, mothers, grandmothers—these hats in easy crochet go with everything. Make of straw yarn or ribbon in your favorite color. Directions for all head sizes. 25 cents.

9119. Pleat-pretty princess, graceful from any angle. Printed pattern in Teen Sizes 10-16. Size 12 takes 3¼ yards 35-inch fabric. 35 cents.

4547. Scoop of the season with tucked bodice, graceful 8-gore skirt. Printed pattern in Misses' Sizes 12-20. Size 16 takes 4¼ yards 35-inch fabric. 35 cents.

9243. Sun sheath and princess jacket, each with pretty tab detail. Printed pattern in Misses' Sizes 10-18. Size 16 dress takes 3½ yards 35-inch fabric; jacket, 1½ yards. 35 cents.

4754. Curvy neckline, slim skirt for dress; bolero, smooth and simple. Printed pattern in Half Sizes 14½-24½. Size 16½ dress takes 3½ yards 35-inch fabric; bolero, 1¾ yards. 35 cents.

695. Soft shell-stitch crochet for cap and jacket—perfect gift to welcome baby. Use 3-ply baby yarn in two colors. Directions for set in Infants' to Six-month Size. 25 cents.

976. Pretty bib apron trimmed with embroidered pansies, rick-rack. Takes 1¼ yards 35-inch fabric. Transfers, directions, measurements for apron skirt. 25 cents.



9119
10-16



4547
12-20



9199
14½-24½



9371 14½-24½



9228
10-20



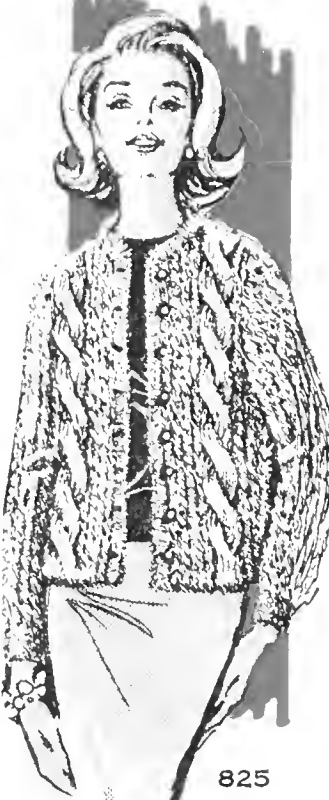
4754
14½-24½



9243
10-18



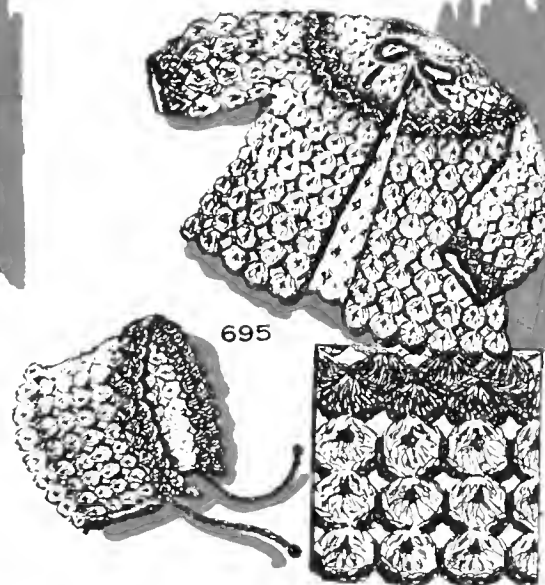
7044



825



7434



695



976

DRESS PATTERNS are THIRTY-FIVE CENTS each; NEEDLECRAFT PATTERNS are TWENTY-FIVE CENTS each. Send orders (with coin) to: AMERICAN AGRICULTURIST, Pattern Department, Box 42, Old Chelsea Station, New York 11, New York. Please write name, address, pattern size and numbers clearly. Send FIFTY CENTS (in coins) today requesting our "Fashions to Sew" catalog of printed patterns. With this new catalog, look forward to an exciting summer. After reviewing the 304 design ideas, choose ONE pattern as our free gift to you. To receive the pattern of your choice, mail the coupon inside the catalog. Send 25 cents for our Needlecraft Catalog with more than 200 designs to knit, sew, crochet, and smock — plus fashions, home furnishings. Everything for your needle!

What's Your Hobby ?

Hobby Letters From Our Readers

GAME BIRDS

My husband and I are interested in game birds. We have a few Ring-necked Pheasants and a few Japanese Quail (Coturnix). The pheasants have begun to lay. We have a small incubator and hope to be able to raise some. My husband now wants a pair of peacocks and I want some Bob White Quail. We used to have Bob Whites around here, but they are about gone. I love to hear their cheery whistles.

Here in New York State, you can get a license for \$2.50 from the Conservation Department, State of New York, Division of Fish and Game, Albany 1, N. Y., which entitles you to keep for food purposes, as well as for scientific, exhibition, propagation or stocking any of the following: elk, white-tailed deer, mallard ducks, black ducks, geese, pheasants, quail, wild turkeys and Chukar partridge. Hungarian or European gray-legged partridge or ruffed grouse also may be raised, but not sold for food.

The person applying for the license has to tell what he plans to keep and where he plans to obtain them. Then the license will be marked for just those species, but may be amended later. Our license, for instance, is just for pheasants and quail. There are also rules about keeping records and selling stock. The Conservation Department will supply such rules with the license.

We subscribe to a Pheasant and Game Bird Gazette and find it very interesting. One place, the Southwick Animal Farm near Blackstone, Mass., advertises 39 varieties of geese, 75 varieties of ducks and 30 varieties of pheasants, besides many other birds and animals. — Mrs. Norman Aikens, R. 1, North Clymer, N. Y.

PLASTIC HANDBAGS

I have a hobby I learned last winter in Florida. It is making plastic handbags, trimmed with art foam decorations. It is fun to make them, and one sheet of art foam will make several bags, so they are not too expensive. I also make mother and daughter sets which are popular. You can buy small baskets and the flowers are made smaller. — Anna Tryon Gaunt, Box 35, Lacona, N. Y.



WREN SONGS ALL THE WAY

By Russell Pettis Askue

I walked at dawn on a country road
With wren songs all the way.
I could not tell if the warbles flowed,
Eagerly bubbling and gay,
From a soloist keeping pace with me,
Or a quartet passing along,
Like a relay team, from shrub to tree,
Their bright baton of song.

Some morning I may try to find
What tricks the rascals play,
Although I do not really mind,
With wren songs all the way.

COLLECTS LEAD PENCILS

My hobby is collecting advertising lead pencils with the names and addresses of those distributing them. I now have about 2,000 of them (no two alike) in my collection. Perhaps someone else has the same hobby and would like to have me send them one where I have two of a kind, in exchange for one I do not have in my collection. — Clyde Richards, 1 Exchange St., Avoca, N. Y.

LIKES OLD THINGS

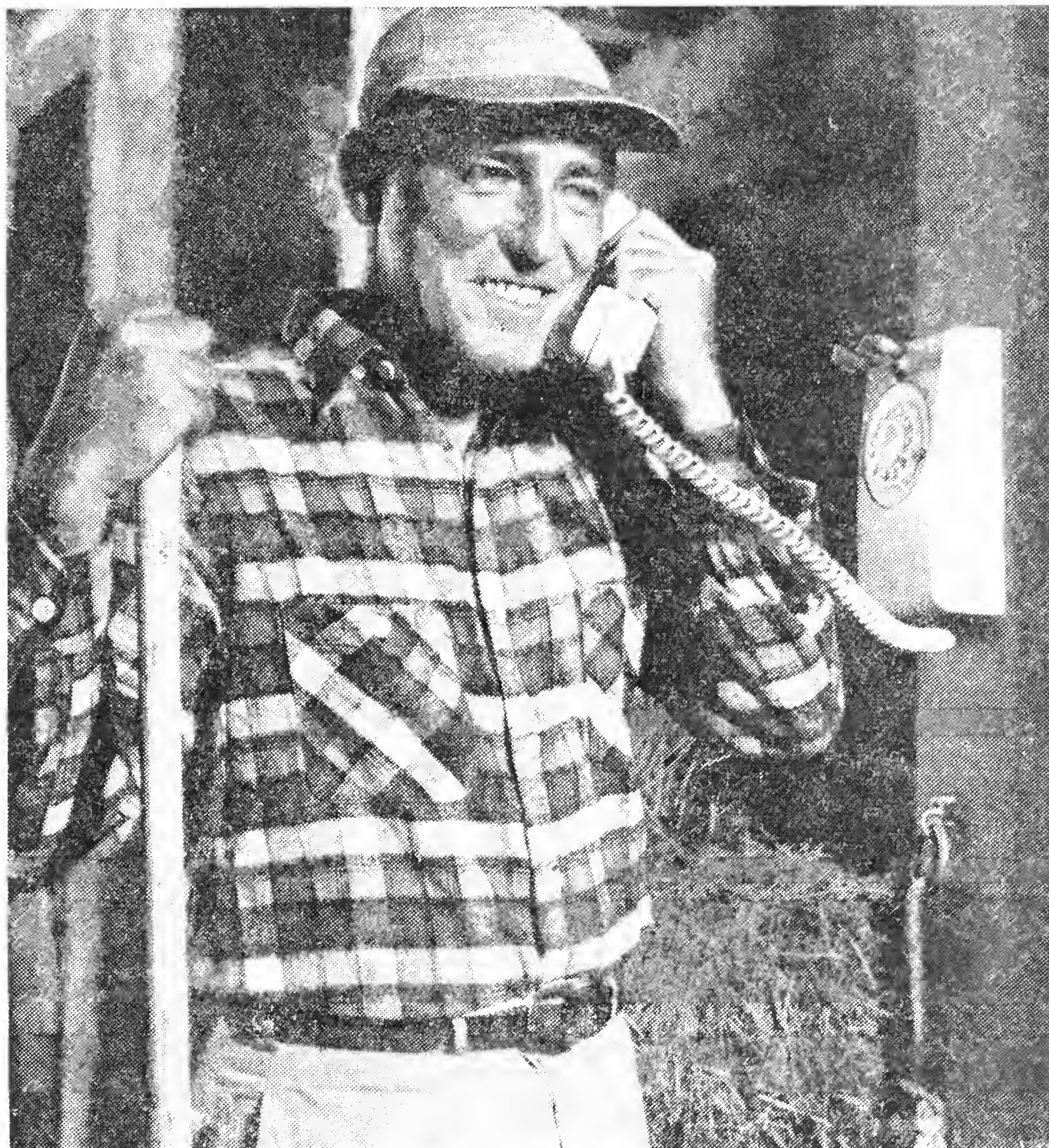
My hobby is collecting old things. I have two old Bibles I love and read. One is 120 years old, the other, 130 years old.

I also collect old bottles made of colored glass. A friend from California sent me one from a ghost town called Bodie. This bottle is 100 years old.

I have some bottles so small that I have to clean them with a cotton tip, and some I learned to clean from my mother-in-law. By putting small stones, soap and water inside the bottles and shaking them, they come sparkling clean.—Mrs. Amy M. Sanville, Box 1R-147-A, Franklin, New Hampshire

HOME WORKSHOP

A Cement Bird Bath may be made with a mold constructed of lath and lumber. Pattern 227 shows each step and gives concrete formula, costs 35 cents. Send orders to AMERICAN AGRICULTURIST, Pattern Dept., Bedford Hills, New York.



In a barn that's built for business — you'll naturally find a phone!

You spend a lot of working time in your barn. So why should you run to the house and back every time you have to make or receive a call? A barn extension phone lets you do business by telephone right there where you're working. Call your telephone business office, or ask your telephone man.

SAVE STEPS WITH A KITCHEN PHONE, TOO!

In a modern farm home, the kitchen is designed for family activities. A telephone helps make it even more of a useful home center. Choose a phone from a wide selection of styles and colors. Shown here, the popular space-saving wall model—available in four cheery kitchen colors...yellow, pink, beige and white.



New York Telephone

Part of the nationwide Bell Telephone System

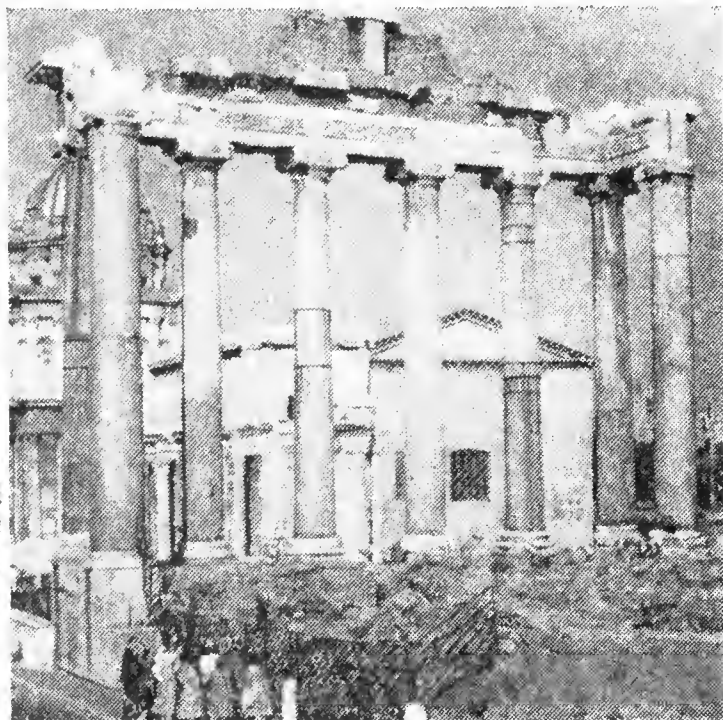
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Science Shrinks Piles New Way Without Surgery Stops Itch—Relieves Pain

New York, N. Y. (Special) — For the first time science has found a new healing substance with the astonishing ability to shrink hemorrhoids and to relieve pain — without surgery.

In case after case, while gently relieving pain, actual reduction (shrinkage) took place.

Most amazing of all—results were so thorough that sufferers made aston-

ishing statements like "Piles have ceased to be a problem!"

The secret is a new healing substance (Bio-Dyne®)—discovery of a world-famous research institute.

This substance is now available in suppository or ointment form under the name Preparation H®. At all drug counters.

When You Move, send us both your old and new
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American Agriculturist, 10 No. Cherry St., Poughkeepsie, N. Y.

How's and Why's of Pruning

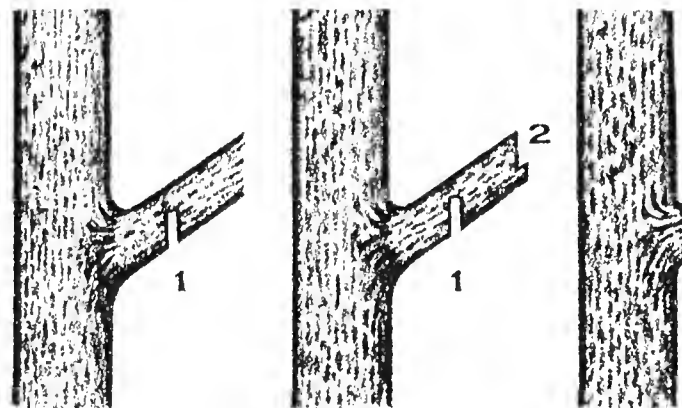
By NENETZIN R. WHITE

HOW do I prune my plants?" Now that's a good question! It must be answered by another question—"Why prune at all?"

Let's start with shade trees. They should be pruned for weak crotches, broken limbs, and diseased areas; they may be pruned for low heads, high heads, or to restrain side growth, which is sometimes done to frame a view. All cuts should slant so that water will not collect, as shown in Figure 3. Collected water can cause rotting, and with alternate freezing and thawing in winter, accumulated water can cause a tree to split.

Undercutting of limbs is most im-

I call "nipping" every year. This consists of lightly cutting back the long branches (do this unevenly) to thicken the plants and make them more resistant to snow and ice damage. In this class are the taxus (yews) and junipers. Arborvitae and tsuga (hemlocks) need the hedge-shears treatment to keep them thick and within bounds. It's best to shear them in late May or early June, and then re-shear lightly after the season's growth, in September or October. Hedges can be informal and need very little attention, or you may have a formal hedge, which should be sheared several times a year. A hedge should be shaped as



Stub-cut branches to prevent splitting the wood and stripping the bark. Make first cut from below at 1; cut off the limb from above at 2; remove the stub with a cut at 3.

portant. A straight cut is very apt to peel and strip the bark down the main limb, so study the stub cutting diagram, and follow this for all cuts. Be sure to cover all cuts with a good tree paint. "Feathering," or leaf growth along the trunk, should be discouraged. Newly transplanted trees frequently send out these little side shoots. Remove them as soon as they appear.

Large evergreens such as pines, spruces, firs, etc., can be left to attain full natural growth if that is your wish. To restrain their growth or to keep them nice and full, cut or pinch back the new growth about June 15. One-third to one-half of the new growth can be removed. If this is done each year, evergreens will be more dense and shapely and can be kept to almost any size you desire.

I feel that flowering shrubs are best when left as natural as possible. Prune them only to remove dead or unflowering wood, and storm or winter-damaged, scraggly branches. As shrubs mature, they sometimes get a bit overgrown and "leggy"; also, the old wood after many years is less floriferous. Then, the ideal thing is to remove a few of the oldest and thickest canes at ground level. A few of the others may also be cut back for good shaping, but try to keep the normal shape of the plant.

As shrub borders mature, it may be necessary to remove a few of the old branches each year. In the case of very old plants, it is sometimes best to cut back the entire plant to ground level. This should only be done from November to March, when the plant is fully dormant, and then be sure to feed afterward. Bone meal is, I think, one of the best fertilizers, and it won't burn.

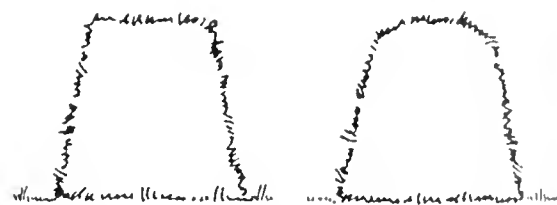
To keep shrubs at their best blossoming level, do your pruning right after they flower, except when cutting back to ground level, as discussed above. I do my pruning when my plants are in blossom. This doesn't hurt the plants, and I have nice cut flowers for the house. People who prune in the fall are simply cutting off next spring's already formed flower buds.

Foundation evergreens need what

in the illustration below so the sun can get to the bottom branches.

There are various treatments for the different kinds of roses. Care for bush roses (rugosa, hugonis, etc.) as you would flowering shrubs. The floribunda are cut back to live wood, to present an even appearance. Hybrid teas should be cut back to two or three live buds in late spring. Many people want to cut back hybrid teas in the fall or early spring. In more moderate climates this is all right, but in our central New York area, it is not advisable to do the severe cutting back before May. It is all right though to just lop off the uneven, scraggly tops. I prefer a rose plant cut back to about four or five inches each spring, for it makes a more compact, nicer looking plant.

Low growing shrubs on banks, such as Coralberry and Snowberry, can be cut to the ground every two



A well shaped hedge should be narrower at the top than the bottom, as shown in the above drawing.

or three years. Do this in the early spring and then feed. Hall's Honeysuckle (often the only practical solution to a very steep bank) sometimes becomes bunched, as do other vine-type bank covers. Don't be afraid to cut out some of this "uppy" growth—again, in the early spring.

Perennials in central New York are best when cut back and cleaned up in April or early May. Somehow they seem to winter over better this way than when cleaned up in the fall. However, if you have had disease or heavy insect infestation, cut back, clean up, and burn all foliage in the fall. Whichever you do, a light mulch is beneficial. Either peat moss or one of the new wood fiber products is perfect. If you've had blights or mildews in perennial beds, it will help to clean out the dead material.

(Continued on Page 28)



'round the kitchen

WITH ALBERTA SHACKELTON



MAKE "Milk for Everybody" the daily slogan in your family during Dairy Month and in the months to follow! Milk provides generously of the mineral calcium and the vitamin riboflavin, two nutrients frequently neglected in the American diet. These are the daily recommended amounts for milk: 3 to 4 cups for children under 10, 4 cups or more for teenagers, 2 to 3 cups for adults, 4 cups for pregnant women, and 6 to 8 cups for nursing mothers.

The easiest way to serve milk is in beverages. Add eggs and flavorings, such as jams and melted jellies, maple sirup, brown sugar, vanilla, or molasses, to milk for nogs. Malted milk powders, fruit sirups, coffee, chocolate and butterscotch sirups, or any of the flavored powdered gelatine dessert mixes make good shakes when added to milk. Make delicious floats by adding ice cream, whipped cream, or sherbets to any of the above, or to just plain milk. Dramatize the serving of your milk drinks by using attractive glasses or mugs and by garnishing with fruit slices, mint sprigs, or small fruits, as raspberries, blueberries, and the like.

Care of Milk

Flavor, food value, and cleanliness may be lost if milk is not properly handled. Follow the rule of three C's and a D—keep milk **Clean**, **Cold**, **Covered**, and **Dark**. Store milk

- Dash white pepper
- 2 tablespoons lemon juice
- 1 cup diced cucumber
- 1/2 cup shredded carrots
- 1 cup creamed cottage cheese, sieved
- 1 tablespoon minced parsley or chives
- 1 cup dairy sour cream

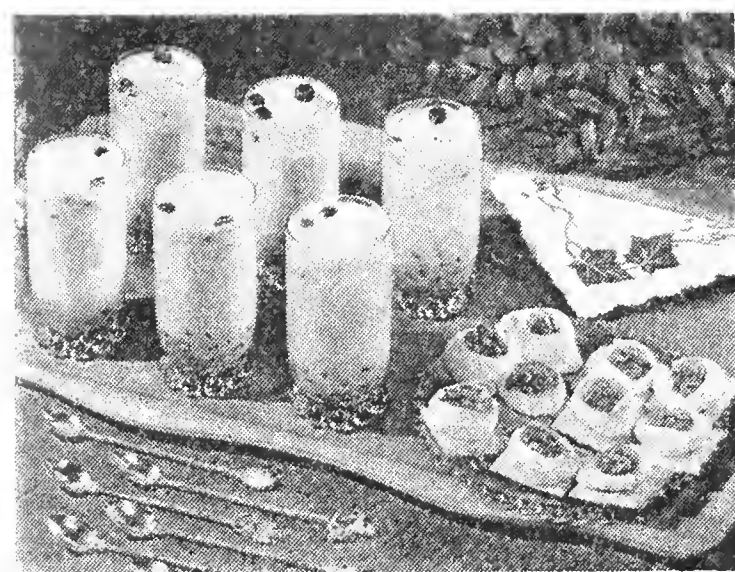
Dissolve gelatine in hot water, stir in cold water, salt, pepper, and lemon juice. Spoon a thin layer in a 5-cup salad mold and chill until sticky firm. Overlap very thin whole cucumber slices and carrot pieces to make a design. Chill slightly. Add remaining cooled gelatine to cheese and chill until slightly thickened. Fold in the diced cucumber, shredded carrot, parsley, onion and sour cream. Spoon carefully over top of vegetables in mold. Chill very firm and unmold on crisp salad greens. Serves 6.

Pastry With Less Fat

U. S. Department of Agriculture scientists announce two easy methods of mixing pastry dough that make high quality pastry with less than the usual amount of fat. One is made with liquid oils and the other with solid fat.

For a 2 crust pie with liquid oil.

Shake together 1/2 cup minus 1 tablespoon cooking oil and 1/4 cup water (both at room temperature), and sprinkle into a mixture of 2 cups all purpose flour and 3/4 teaspoon salt, while blending with an electric



For an inviting snack, serve frosty milk shakes or floats with your favorite cookies. Shown are ice cream floats with blueberries added for color and flavor appeal.

Photo: National Dairy Council

in the coldest part of the refrigerator and remove only as needed.

The following recipes for Pastel Summer Punch and Cucumber Cream Mold from National Dairy Council are refreshing for summer weather.

PASTEL SUMMER PUNCH

- 1 6-oz. can frozen pineapple juice concentrate, thawed
- 1 6-oz. can frozen orange juice concentrate, thawed
- 3 cups water
- 3 cups milk
- Dash salt
- 1/4 cup sugar
- 1 quart lime sherbet

Combine juice concentrates, water, milk, salt, and sugar, and mix well. Spoon sherbet into punch and stir lightly. Serve very cold. Makes about 20 half-cup servings.

CUCUMBER CREAM MOLD

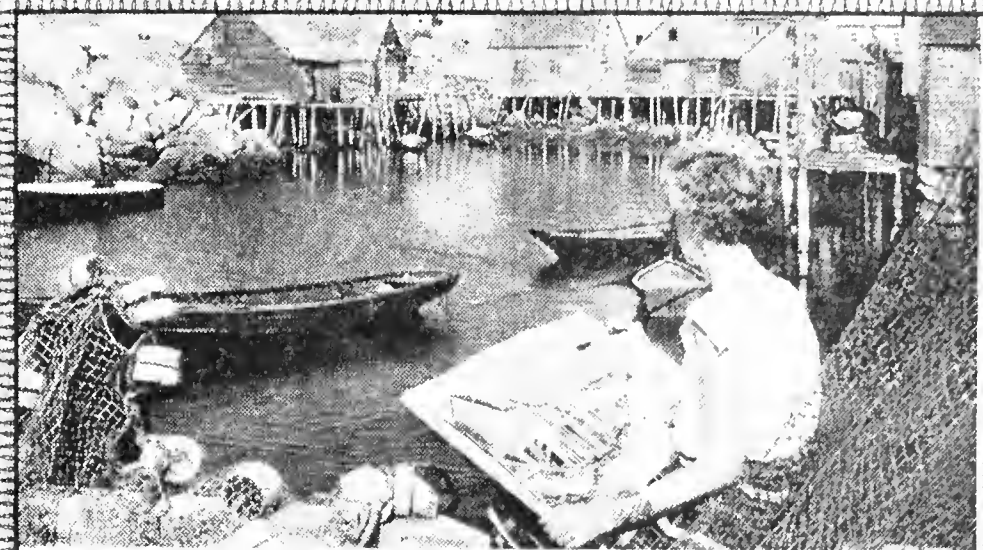
- 1 package lemon flavored gelatine
- 1 cup hot water
- 1/4 cup cold water
- 1 1/2 teaspoons salt

mixer at lowest speed for 3 minutes, or you may stir with a fork. Dough may appear dry, but it can be easily molded by hand. Divide in half, shape each piece into a ball, and roll out between waxed sheets.

Use an ordinary laundry sprinkler to measure liquid shortening and water, and to add to dry ingredients. First time of use, add oil and mark the level with nail polish. Then add the right amount of water and mark this. Use the marks for measuring each time you use the sprinkler.

For a 2 crust pie with solid fat. Using an electric mixer at lowest speed, blend 1/2 cup solid fat (room temperature) into a mixture of 2 cups all purpose flour and 3/4 teaspoon salt, for 2 minutes. Cut fat in small chunks and roll in dry ingredients before blending in mixture. Sprinkle in 3 tablespoons water and blend 1 minute. Dough will look dry and crumbly, but will hold together in a ball. Divide in half and roll each

(Continued on Page 28)



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Were sold in 1962 by members of Sunday Schools, Ladies Aids, Young People's Groups, etc. They enable you to earn money for your treasury, and make friends for your organization. Sample FREE to Official.

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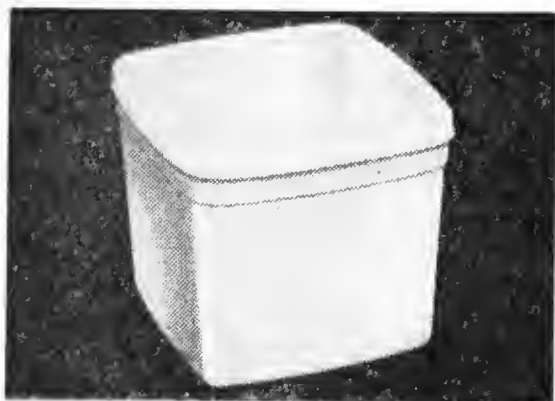
Established 1915 Cohoes, N. Y., 23

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GINGERBREAD CONTEST NEWS

By Augusta Chapman, Home Editor

GINGERBREADS hold the spotlight this year in Grange halls all over New York State, as contestants in the baking contest sponsored jointly by American Agriculturist and New York State Grange compete for honors. The contest started in the Subordinate Granges last January, and local winners are now matching gingerbreads in Pomona competitions to see who will represent each county in the finals this October. Following is a list of the county winners to date:

POMONA WINNERS

COUNTY	GRANGE	WINNER
Allegany	Cuba	Mrs. Helen Burt
Chenango	Greene	Mrs. Ella Davis
Columbia	Hillsdale	Mrs. Bertha Ostrander
Essex	Reber	Mrs. Norma Soper
Fulton	Mayfield	Mrs. Ursula Brownell
Jefferson	Adams	Mrs. Marjorie Hodder
Niagara	Lockport	Mr. Harry J. Kelley
Oneida	March	Mrs. Laura Smith
Onondaga	Lamson	Mrs. Edna Horner
Schenectady	Glenridge	Mrs. Carolyn Rimmer
Schoharie	Ramona	Mrs. F. Vrooman
Ulster	Plattekill	Mr. Charles Everett
Wayne	Rose	Mrs. Lois Anthony

It's always fun to get reports from the Pomona Service & Hospitality chairmen, for many include interesting side lights about their contests. Here are brief notes from several of them:

Mrs. Lois Bledsoe, Allegany County. "Our judges appeared to really enjoy judging the entries. They mentioned it was so much fun they would be willing to do this sort of thing another time. Mrs. Burt, our



MRS. M. HODDER
Jefferson County



MRS. E. HORNER
Onondaga County

winner, is an active member of Cuba Grange and is Juvenile Matron. She has lots of cooking and baking experience, as she is the mother of a large family."

Mrs. Robert Bower, Niagara County. "When Mr. Kelley entered the Subordinate Grange Gingerbread Contest, it was the first time he had ever made gingerbread. He just followed the recipe and told his wife, 'Men know more about cooking than women give them credit for.' Harry Kelley has been a member of the Grange for 40 years and is a Grange insurance agent."

Mrs. Elizabeth Phillips, Schenectady County. "Our winner, Mrs. Carolyn Rimmer, is a charter member and active worker in Glenridge Grange. She has held many offices in the past and is the present Steward of that Grange." Schenectady County had 39 entries in its Pomona contest, which is the largest one reported to date. Also, it was the first one to be held—on January 18.

Mrs. Virginia Simpson, Schoharie County. "We had 10 entries out of a possible 13, and I feel this was a very good turnout. The day was extremely cold, and snow banks around here were six feet high. Our judges felt they had quite a task cut out for them. The contest was so close that they had to break a tie for second and third places."

Mrs. Nathaniel Phillips, Ulster County. "I believe this is the first

time our county has had a male winner. We are proud of Mr. Everett because he has proven men can bake as well as women. In visiting various Granges, he encouraged men to enter the Gingerbread Contest, so he had to 'practice what he preached' and enter himself. I am sure he is now looking forward to the State Contest."

'ROUND THE KITCHEN

(Continued from Page 27)

piece between sheets of waxed paper. Sprinkler may also be used to add water when using the solid-fat method.

For the Kitchen Bookshelf

"MILK FOR YOUR FAMILY," Cornell Extension Bulletin 1017, discusses the various kinds of milk available, care of milk, ways to stretch the milk dollar, and includes a few recipes.

"CHEESE — BUY IT, EAT IT, ENJOY IT," Cornell Extension Bulletin 1020, lists the varieties of cheese, selection points, food value, care and ways to serve it.

Single copies of the above two bulletins are available free to New York State residents. Charge to non-residents, 5 cents for each bulletin. Send your requests to Mailing Room, Stone Hall, Ithaca, N. Y.

"GETTING ENOUGH MILK" (HG-57) was prepared by U. S. Department of Agriculture scientists. It includes recipes and gives many hints for getting milk into meals. Price 15 cents.

"RECIPES FOR QUANTITY SERVICE" (HERR-5) is presented by the U. S. Department of Agriculture. This bulletin will be valuable for those who have responsibility for church suppers, dinners for family reunions, and money making meals for various groups. Ingredients for recipes are given for 25, 50, and 100 portions. Price \$2.50.

The above two bulletins are available from Superintendent of Documents, Government Printing Office, Washington 25, D. C.

Note to Readers

Plans are under way to collect recipes which have appeared in AMERICAN AGRICULTURIST over the past years in a "Round the Kitchen Cookbook." Buying, meal planning, cooking, baking, and serving hints will also be included. Drop me a note and tell me what you think of this idea and what you would like to find in the cookbook. Please send your notes to Mrs. H. E. Shackleton, 103 Kay St., Ithaca, N. Y.

PRUNING

(Continued from Page 26)

and it's a good idea to use a fungicide on the ground to kill the spores and organisms that have wintered over in the beds. Use captan or a similar product.

For all pruning jobs you need good sharp tools—a small pruning saw (Phil likes the folding type where the blade folds into the handle. Guess that is because it is more comfortable if he sits on it!), a pair of heavy lopping shears, hedge shears, and a pair of hand pruners. With these four pieces of equipment, you are in business! Try to get heavy duty shears. They are expensive, but will last a lifetime if used properly.

REWARD WANTED



HARRY ENNIS

I'm looking for three district fieldmen. Openings now available in New York State for Madison County, Chenango County, Dutchess - Columbia counties. If you are between 25 and 45, like to meet people, have a dependable car, want a year-round position with income of \$75.00 a week or more to start, send me your qualifications.

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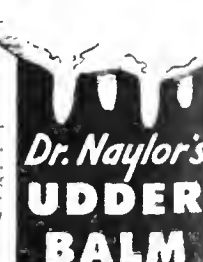
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Personal

Farm Experience

The items on this page all come from the firing line of farm production.

CORN GROWING

I FEEL sure that corn will increase in importance on Northeast dairy farms. I know it has on our farm, where we are growing more corn and less alfalfa, largely because new developments such as chemical seed control have made it possible to cut corn-growing costs. Another thing that has increased the cost of growing corn is the alfalfa weevil.



Bob Greig

We use Atrazine for weed control, but still do some cultivation on about half the corn acreage when grass gets a start. Nowadays the corn harvest is less dependent on a few days of perfect weather at a critical time.

We have increased corn production by aiming at a kernel to every 7 or 8 inches instead of one kernel per foot, and we are putting on more fertilizer. In addition to manure, we put on 500 pounds per acre in bands at planting time, and if we feel more nitrogen is needed we call the local co-op and they sidedress with liquid nitrogen. Years ago we felt we couldn't put on over 200 to 300 pounds of a low-grade fertilizer with the planter.

We are growing corn year after year on one 30 acre field near the barn. We pick it, and then turn in young stock. They get a lot of grain and roughage, and tramp the rest so it plows under easily.

We plant several varieties to spread harvesting. In fact, we plant one early variety as soon as possible, and begin greenchopping a load a day about August 1.

On the other hand, we sometimes plant after hay harvest. One year we baled hay one day and had the field planted to corn by the following evening.

We tried plow-planting one year but didn't continue. Our soil is light, and I can see how plow-planting might work well on a heavier soil. Incidentally, another reason why corn is growing in importance is the greater ease in harvesting and storing it. — Robert Greig, Red Hook, N. Y.

PLENTY OF HAY

We have 70 milkers (150 head in all) on our 400 acres of land. It was pretty dry in the summer of 1962, although we did get some local rains that missed some of the folks around us. We cut 50 percent of our alfalfa twice, though, and got three cuttings from the rest of it.

Normally we sell about 175 tons of hay a year, maybe even a little bit more last year. Our seedings have consisted of Vernal and Narragansett alfalfa plus Climax timothy. We have moved away from brome grass because it grows so rank and tends to run alfalfa out. We like a little grass with alfalfa, though, because we think it makes a better quality hay than alfalfa alone.

We fertilize hay fields with 6-24-24 or 0-15-30. We prefer putting it on right after the first cutting. Although we have applied some in the fall after frost has killed the plants, we know that nitrogen losses can be pretty high if put on that late. Usually our rate of application is between 300 and 400 pounds per acre.

In 1962 we finished our first cutting on the second of July, but in 1961 it was about the 20th of July.

We cut and condition hay in the morning and, if the weather is good, start baling that hay the afternoon of the next day. We try to rake it when it is still a little tough, then roll it over ahead of baling. It is a neat trick to roll it over soon enough to get it dry, but not too far ahead of the baler so it will shatter the leaves. — Lewis Neenan, Holcomb, N. Y.

LIKES GARRY

I have been growing Garry oats for the past five or six years and they have done well for me. In 1961, oats in Chautauqua County were probably the poorest crop harvested. One of my fields yielded approximately 55-60 bushels per acre; the other field, planted about ten

days later, yielded only about half as much. Up until 1961, the yield ran from 75 to over 100 bushels per acre.

As over half my cropland is on the opposite side of the road from my buildings, the oats are combined. The straw is needed for my dairy.

Two of my neighbors put their oats into the silo or pastured them last year because they were planted later than mine. Their seedings were fully better than mine.

It looks to me that really the place for oats is in grazing during the dry summer months. I am not completely convinced on leaving oats out of the rotation as yet, but I don't think they are anywhere near as important as they used to be.—Ralph J. Lawson, Jamestown, N. Y.

LET'S SET THE RECORD STRAIGHT!

In last month's issue of this magazine the American Breeders Service carried an advertisement reporting "Cornell Studies" purportedly showing a production superiority for ABS Holstein sires over NYABC and Curtiss sires.

HERE ARE THE FACTS:

The data reported by ABS in their advertisement in the May, 1963 issue of American Agriculturist do not represent a Cornell study. Cornell daughter level reports of AI sires have never shown the results as summarized in that ad.

In fact a summary of the January, 1963 daughter level on sires currently reported as available for service shows superiority of NYABC sires for milk production over other groups of sires summarized.

At the present time, NYABC has 24 AI Proved Holstein sires available for service with an average superiority of +463 lbs. of milk and +19 lbs. of fat over the New York DHIA Holstein average. Over 90% of NYABC's 400,000 Holstein services are being made to superior AI Proved Sires.

These are the facts! They speak for themselves!

We sincerely regret the necessity for public statements of this type, but we feel that it is our responsibility to see that dairymen are not misguided through misleading statements which may influence their future income.



Charles J. Krumm

Charles J. Krumm
General Manager
New York Artificial Breeders' Cooperative, Inc.

YOUR HEADQUARTERS FOR SUPERIOR AI PROVED SIRES



ED EASTMAN'S PAGE



THE MAGIC OF LIME

EVER SINCE I was a county agricultural agent in Delaware County in 1916 I have never ceased to be amazed at the almost magical results that ground limestone will produce on sour soils. Pile on all the fertilizer you can, drain the land well, but if it lacks lime it just will not produce many crops well, especially legumes.

In Delaware County I had several lime demonstration plots in different parts of the county, and after the lime had had opportunity to work on the soil you could see the results almost as easily as you could see the field.

Today, the use of lime has become a general farm practice, but still there is not nearly enough being used.

Blessed is the farmer who owns land with high lime content, but unfortunately, here in the Northeast most of the soil is acid. A few crops will grow on such land. Others will do fairly well, but it is impossible to grow alfalfa and most of the other legumes if the soil is not high in lime. How about yours?

It's a simple procedure to get your soil analyzed. Talk to your county agent about it. If you are not equipped to spread lime, you can get it spread for you.

"MY FEET ARE KILLING ME!"

The latest fad of long distance hiking was started by President Kennedy when he suggested that officers of the Marine Corps should keep in good enough physical condition to be able to walk fifty miles a day. Thousands are now following the fad.

Of course walking is excellent exercise, but walking long distances a day when one is not used to it is foolish and dangerous. The distance should be short at first, then gradually built up as one's muscles and endurance improve.

It is highly important for those who walk a lot to wear properly-fitted shoes. Many women ruin their feet with high-heeled shoes that throw much of the weight of the body unnaturally on the front part of the foot. Toes should never be cramped. Shoes should fit snugly but not too tightly.

Fortunately, in recent years more women are wearing sensible shoes, slippers, and sandals.

When I was farming, I found that I could not wear low shoes. They soon filled with dirt, and gave little support to my ankles and lower legs.

Alternating walking and standing with sitting gives the feet a much needed rest. In walking, the toes should point nearly straight ahead, the way the Indians used to walk and run long distances.

Take care of your feet, and they will get you, I hope, a long way on the Great Road!

* * *

Love-making hasn't changed in two thousand years—Greek maidens used to sit and listen to a lyre all evening too.

* * *

Life is a vicious cycle. We lose our health trying to get wealth — and then we lose our wealth trying to get health.

When You Retire

What are you as a farmer going to do when the time comes — as it surely will — when you must slow up? How difficult it will be then to make the adjustment to go on living with some satisfaction and contentment after such a radical change.

All of your life, since a boy, you could hardly wait for spring to come so you could get into the big campaign again of raising your crops with high hopes that this would be the best one ever. For a lifetime almost every hour of your working day has been spent making plans and working to take care of your cattle and raise your crops.

Suddenly — almost before you can realize it—accident, sickness, or old age has crept up on you. What to do? Wise indeed is the man who plans his retirement before the time comes.

If you have a son to whom you can turn over the business, you are lucky. But there are other solutions to the problem. One of them is to set up a roadside market. That means a lot of careful thought before you plunge. If you have a good location on a well-traveled road, with plenty of park-

THE GOOD OLD SUMMER TIME

You have heard about the boy who, when asked why he pounded his head against the wall; answered, "Because it feels so good when I stop."

I feel the same way about winter and summer. After a long, hard winter like the one just past, I appreciate the spring and summer, especially June, more than I possibly could were it summer all the time.

Strange as it may seem, my friends who have retired to spend the rest of their lives in the almost constant sunshine of Florida or California tell me how they miss the rolling seasons of our north land. Summer all the time grows tiresome. Nowhere else in the world can you get the beauty and the glory that we enjoy here in May and June!

James Russell Lowell had it

right when he wrote in his poem called, JUNE:

And what is so rare as a day in June
Then, if ever, come perfect days;
Then Heaven tries earth if it be in tune,
And over it softly her warm ear lays;

Whether we look, or whether we listen,
We hear life murmur, or see it glisten;
Every clod feels a stir of might,
An instinct within it that
reaches and towers,
And groping blindly above it for light,
Climbs to a soul in grass and flowers;

The flush of life may well be seen
Thrilling back over hills and valleys;
The cowslip startles in meadows green,
The buttercup catches the sun in its
chalice,
And there's never a leaf nor a blade
too mean
To be some happy creature's palace;

The little bird sits at his door in the sun;
Aitil like a blossom among the leaves,
And lets his illumined being o'errun
With the deluge of summer it
receives;

His mate feels the eggs beneath her
wings,
And the heart in her dumb breast
flutters and sings;
He sings to the wide world and she
to her nest—
In the nice ear of Nature, which song
is the best?

SOMETHING TO THINK ABOUT

It seems to me that one of the most important questions that a farmer should ask himself when contemplating buying a new piece of equipment is—"Do I have work enough to justify the heavy investment? If I have work for this machine for only two or three days out of the whole year, can I afford to let it sit around and rust out? Maybe it would be much cheaper to hire the work done or to change work with a neighbor."

I have often wondered why there couldn't be more cooperation among neighbors to share little-used equipment, one farmer owning one piece of machinery and another farmer-neighbor owning another.

EASTMAN'S CHESTNUT

For many years following the Civil War there was almost constant controversy, sometimes leading to bloodshed, between the cattlemen of the West who wanted their herds to roam free and the farmer settlers who put up barbed wire fences to keep the cattle out of their crops.

In his interesting autobiography, Dr. William L. Crosthwait, who practiced medicine in Texas during the early days, tells what a nuisance it was to go anywhere because of opening and shutting gates.

"One day," said Dr. Crosthwait "I was on my way to visit a patient four miles out of town. Upon arriving near the ranchhouse I found the gate to the wire fence open and the horses trampling down a field of corn. There was no one around except an old German who had never quite mastered the English language.

When I asked him what happened, he said, 'Some darn fool shut the gate wide open, turned the horses inside out; where in hell is nobody?'



Operating an attractive roadside stand is one possibility for farmers forced to retire because of age or partial disability.

Photo: USDA



SERVICE BUREAU

INSURANCE COMPANIES

"Can you tell me anything about the hospital and health insurance described in the attached folder? Is this a reliable company? Have you any information on claim payments?"

The particular company about which our reader inquired is licensed by the Insurance Department of his state. We always feel it is safe to deal with a licensed company which is under the jurisdiction of the Insurance Department and subject to its regulations. In the event of a disputed claim, the services of the Department are available to the policyholder.

When buying any insurance, it is extremely important to read the policy very carefully to be sure you understand exactly what the coverage is. We receive frequent complaints against insurance companies, most of which arise from the fact that the policyholder thinks he is covered for a particular accident or illness, when he is not.

It is also important that, when you apply for insurance, you fill in the application completely and truthfully. Otherwise, if your doctor files a report on a claim for illness at some future date he may show a previous related illness not mentioned on your application. If this happens, the company will likely consider that there was a misrepresentation on the application and that therefore no contract exists. They will refund your premium, but will not pay your claim.

BANKRUPT

On April 11, Damar Products, Inc., Elizabeth, N. J., was adjudged bankrupt. The assets were sold at public sale, and it does not seem likely that claims of general creditors (including customers) will be paid.

If you have a claim on an order placed before February 28, you should hear within three months if you are to receive any settlement. Meanwhile, there is no need to attempt to contact the receiver.

If your order was placed after February 28 and your claim has not been settled, you may write directly to: Allan L. Tumarkin, Esq., 9 Clinton St., Newark, N. J.

CAN YOU HELP?

Mrs. Richard Daly, R.D. 1, Weedsport, N. Y. would like a copy of "The Man on the Box" by Harold McGrath.

Do you know the poem which ends:

"I'm glad to see them make the gravy 'cause always when they do

A feller can commence to think they're getting almost through"

If so, Mrs. L. C. Ainsworth, 255 W. Basic, Henderson, Nev., would like a copy.

Mrs. Raymond Hatch, R. D. 2, Fort Plain, N. Y. would like a copy of sheet music entitled, "Rose Dreams."

Inga Larson, 69 Wicks Road, Com-mack, N. Y., would like these poems: "Letter Home" by Robert Foley, and "Old Ironsides."

Mr. George T. Howard, 16 Booth

Rd., Thompsonville, Conn. has a photograph of a Mr. Wm. W. Britt, taken in 1889, when he was 71 years old. Mr. Howard would like more information about this man.

ADDRESSES WANTED

Do you know the whereabouts of: Arthur Wilbur Campbell, born in N. H. in 1916, whose last known addresses were Billings, Montana, and Redondo, Washington.

Any descendants of Wilmina Haverkamp, who lived in Panama, N. Y. at one time. Her second marriage was to Wm. Mensink. Her daughters' married names were Clara Foster and Mary Lindsey.

JUNE FORAGE STRETCHERS

(Continued from Page 19)

many pounds of TDN per acre as the same crop harvested as grain. However, making high quality oat silage requires considerable understanding and skill—the job must be done with precision. Many oat silage problems result from the extremes of ensiling either high moisture material (boot stage without wilting), or when oats are too mature and dry (firm dough stage).

The desirable stages of oat silage would be at the early heading stage if the oats are cut and wilted before chopping, or at the late milk to early dough stage if direct-chopped. Each stage lasts only 3 to 5 days.

Using Sudangrass

Sudangrass, an annual closely related to sorghum, has an extensive root system and continues to grow during hot, dry summer weather better than do most New York forage crops. It is one of the best emergency pasture crops if seeded on land suitable for its growth. It also has a place in a regular pasture-crop rotation. Further, it can be grazed, used for greenchop, or for silage. Piper is the recommended variety.

Several sudan and sorghum hybrids are appearing on the market. They tend to be somewhat slower in regrowth than sudangrass, and have looked better as supplemental crops for greenchop and/or an emergency silage crop than for pasture.

Sorghum Situation

Due to the short season and relatively cool summer temperatures in many areas, sorghums are not generally adapted to New York conditions. Forage sorghum silage is higher in fiber and lower in energy than silage from adapted corn hybrids. Corn has out-yielded sorghum in forage and TDN yields per acre. Due to dangers of prussic acid and lack of regrowth, the sorghum should not be used for pasture or greenchop feeding.

Millet

New York and Pennsylvania grow more millet than any other state! Japanese is the recommended variety. It is superior to sudangrass only on wet land or at high elevations (above 1500 feet). There is a tendency for the plants to "pull" when grazed.

Farmer Escapes Death In Auto Accident



Mr. Carmen DiGiacomo Jr. of Churchville, N. Y. returning from town was forced off the highway and smashed broadside by a car coming headon out of control. Driver of the other car was killed. Mr. DiGiacomo was rushed to the hospital with fractured ribs, knee, thigh, cuts and internal injuries.

Weekly income disability benefits and medical expense benefits were paid from several North American policies. Local agent, Floyd Wyman, right, hands \$1490.71 to Mr. DiGiacomo.

OTHER BENEFITS PAID

John Tilton, Freedom, N. Y.	\$293.00	Roy Van Sickle, Stanley, N. Y.	261.41
Pinched between tractor & beam—broke shoulder & arm		Bitten by hook—broke finger infected	
Richard Ross, Gowanda, N. Y.	382.06	Victor Waterstreet, Kent, N. Y.	115.71
Hit leg on iron rod—cut & infected leg		Fell from moving truck—broke leg & knee	
Merrill Palmeter, Locke, N. Y.	369.91	Ethel M. Malzoin, Montgomery, N. Y.	1116.90
Kicked by cow—broke knee		Thrown by cow—fractured elbows, injured wrists, cuts	
Helen Brown, Sherman, N. Y.	174.56	Henry E. Totaad, Hammond, N. Y.	259.10
Tractor accident—broke foot & heel		Pant leg caught in shaft—broke leg	
Gerald Tillotson, Lowman, N. Y.	111.42	Murray Fisher, Madrid, N. Y.	585.00
Skidding logs, knocked down—broke legs		Tractor accident—broke shoulder & pelvis	
Louis H. Brunell, Chazy, N. Y.	110.00	Alfred Lewis, Bilboa, N. Y.	282.43
Auto acc.—bruised knees and shoulder		Truck accident—compression, multiple cuts & bruises	
Benjamin L. Wells, South New Berlin, N. Y.	155.91	Hilda Dockstader, Avoca, N. Y.	374.80
Fell from ladder—broke elbow		Fell on manure fork—broke knee	
Floyd Slocom, Marathon, N. Y.	1430.00	Harold Stephenson, Callicoon, N. Y.	1375.57
Hit by car—broke arm, leg; injured shoulder, hip & ankle		Auto accident—broke arm, cuts & bruises	
Alex Raheler, Boyma Center, N. Y.	510.00	Herman Rathke, Owego, N. Y.	512.57
Thrown from horse—broke back		Saw kicked back—lost thumb, broke finger	
William Watz, Jr., Springville, N. Y.	174.28	Walter McFall, Sr., Trumansburg, N. Y.	1122.30
Fell getting off tractor—broke leg		Fell out of tree from ladder—fractured ankle	
Douglas L. Smith, Dickinson, N. Y.	107.11	Horace Day, Salem, N. Y.	135.83
Stone boat struck leg—fractured leg		Fell off truck—fractured ribs, injured back & elbow	
Harold A. Munt, LeRoy, N. Y.	1328.93	Kenneth Henning, Macedon, N. Y.	488.00
Fell from scaffold—fractured skull, injured back		Slipped on stone—broke knee	
Stephanie Senk, Newport, N. Y.	179.99	Graydon A. Fancher, Strykersville, N. Y.	616.04
Pinched between tractor & wagon—broke collar bone, bruises		Skill saw jammed—broke hand, bruises	
Garmon Raggio, Ellisburg, N. Y.	103.00	Kenneth Gernert, Mainesburg, Pa.	110.60
Tractor tire blew up in face—broke eyes		Horse fell on insured—broke knee	
Robert H. Berkman, LaFargeville, N. Y.	125.72	Walter S. Cole, Jr., Snedekerville, Pa.	161.14
Auto accident—broke elbow		Slipped on rolling stone—broke ankle	
Malcolm Western, Lowville, N. Y.	973.11	Cecelia Pesarek, Lake Ariel, Pa.	250.00
Playing ball, fell—broke knee		Auto accident—cuts & bruises	
Beatrice Johnston, Mount Morris, N. Y.	155.36	Henry R. Lonie, Columbia, N. J.	168.57
Tripped & fell—broke wrist		Fell off ladder—broke hip & arm	
Charles R. Updyke, Fort Plain, N. Y.	280.63	John Couse, Jr., Newton, N. J.	116.06
Fell from motor scooter—broke elbow, multiple cuts & bruises		On finger on sharp edge of nail	
Sandra Jean Prior, Sauquoit, N. Y.	228.61	Kenneth Parker, Columbus, N. J.	650.03
Thrown from horse—fractured shoulder		Motorcycle accident—multiple cuts & bruises	
Russell H. French, Clay, N. Y.	211.28	Michael Lengyel, Somerville, N. J.	130.25
Jumped from rolling truck—broke back & hip		Cranking tractor, handle kicked back, fractured arm	
		R. Mark Preston, Freehold, N. J.	191.75
		Horse fell on insured—broke collar bone	

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New Horizons in Dairying

(Excerpts from a speech by F. W. Duffee, agricultural engineer, University of Wisconsin)

GREAT changes have taken place in agriculture as a result of tractors for field work and electricity for farmstead chores. It seems likely that these changes will continue at an even faster rate, especially for farmstead chore work. Dairying in Wisconsin has been, is now, and probably will continue to be the major farm enterprise by all odds. Some new things are coming that will further greatly reduce the labor of caring for a dairy herd.

One of the new things that shows

very great promise is the development of the last two or three years in making low-moisture grass silage; making all the hay crop into silage—no hay—and the impact of this practice on dairy barn design, mechanization of feeding, and at the same time providing excellent forage. We emphasize that corn silage is a wonderful forage, and is not to be forgotten; however, Wisconsin is particularly well adapted to grassland farming, so for the most part we will discuss grass silage.

Cows like low-moisture grass silage, and will consume as much on a dry matter basis as is obtained with any stored roughage. High milk production may be obtained when using low-moisture grass silage as the only forage, and it can be fed in large quantities without health problems. No preservative is needed for good results.

A survey of 109 Wisconsin farms using grass silage showed the following: Twenty-three percent made grass silage for the first time in 1962; sixty-seven percent had had one to four years previous experience, and 10 percent had had more than four years previous experience.

Ninety-six percent of the farmers expected to continue to make low-moisture grass silage, and 52 per-

cent said they expect to switch to making all or nearly all of their hay crop into silage.

The only item missing in the complete mechanization of silage from standing crop to animal is a mechanical feeder for stall barns. We have such a feeder at the Electric Research Farm. This is not in production, but a modified model is being developed by at least two manufacturers, and they hope to have experimental models in operation soon.

The labor-saving characteristics of this equipment are very great; for example, it takes only a very few minutes to start the feeder and the silo unloader; they shut off automatically. One man can feed silage to 200 cows four times daily in less than 20 minutes. Incidentally, a large dairy cow will consume upwards of 100 pounds of silage daily. This means five tons daily for a 100 cow herd.

The shift to an all-silage ration results in some important changes in dairy barn design. The space for hay storage is eliminated, and space for bedding only is required. This means a very small second story mow, or if the bedding is stored in another building, then a simple one-story barn may be used. A one-story barn reduces the danger of damage due to windstorms and fire, and is much easier to repair and maintain.

Some farmers are now using rubber cow mats, and eliminating bedding under the cow. These mats are being used to a considerable extent in the eastern part of the United States, and are coming into use in Wisconsin. One Midwest barn equipment manufacturer is planning to sell them locally. They cost some \$30 to \$40 each.

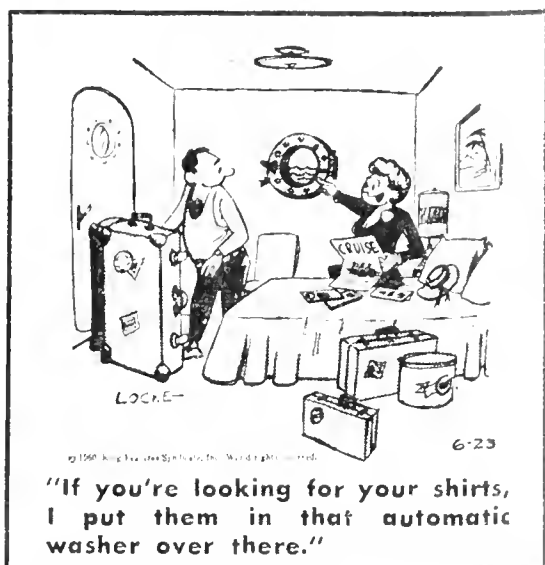
Loose housing systems for housing dairy cattle have not become very popular; probably less than 1 percent of the dairy barns in Wisconsin are of this type. My personal opinion is that the interest in loose housing is very small at present.

Free Stalls

A new type of barn called "free stall housing" has recently come into the picture, and looks quite promising. We know very little about this as yet, particularly as used in a cold climate like Wisconsin.

I personally feel very enthusiastic about the possibilities of this type of barn. However, we must, of necessity, be cautious about recommending it until more experience is available.

There are many design problems that need to be solved, especially the problem of whether an insulated, ventilated structure is desirable under Wisconsin conditions. Personally I believe it is. We urge that anyone considering this type of housing visit several installations and discuss the problems with the owners.



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JULY 1963

American Agriculturist



PASTURE To PLAYGROUND

BY GORDON CONKLIN

THERE'S A BIG push on in the Northeast to encourage the conversion of some farm land into recreational areas. With a considerable acreage of land going out of farming every year, and with "Operation Population" booming in every state, there is real pressure to find recreational room for more people—and profit from less productive land.

George Stramba and his brother John, dairymen nine miles southeast of Cortland (address East Freetown, New York), are in the midst of changing a 450 acre dairy farm, presently carrying a herd of 50 cows, into a haven for folks who like outdoor activities. "The camping business looks better than the cow business right now," says George. "People in cities don't bat an eye when they spend a few hundred dollars for a boat, but they'll kick like a steer if milk goes up a cent a quart."

It all started one day when George was bal-

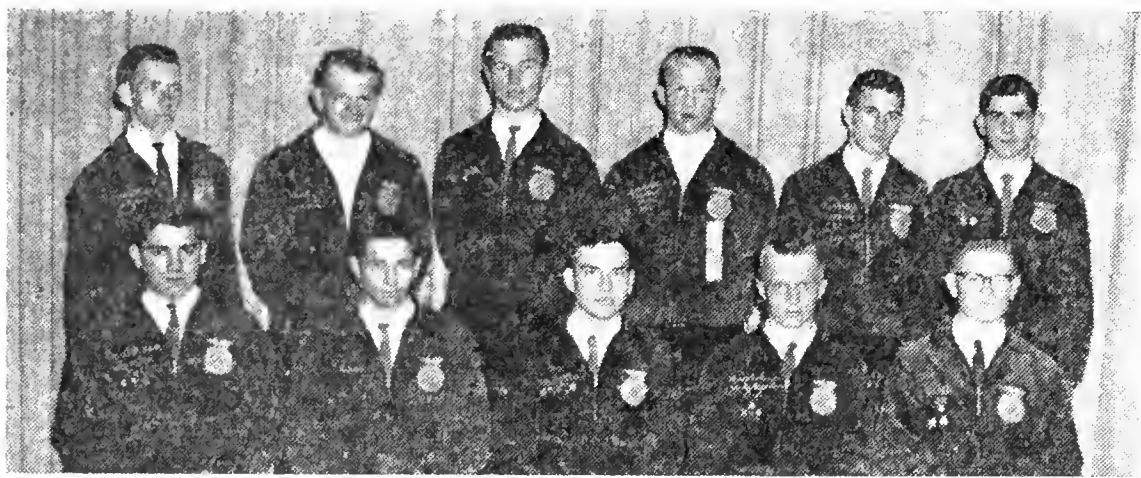
ing hay for a neighbor. Some men from the New York State Conservation Department stopped and inquired about building a wildlife refuge on some swampland on the Stramba acres. To make a long story short, George agreed, and a 25-year lease was drawn up. The Conservation Department constructed a 16 acre pond in 1953. Some time later, a 26 acre pond was built by the same organization, again erecting an earth dam with a bulldozer.

But the parties to the deal agreed to disagree after the lease had run nine years, and George paid off an amount that reimbursed the State for construction costs, cancelling out the lease in 1962. Since then, the Strambas have added a 3½ acre pond designed primarily for swimming.

There are now 65 campsites available at Maple View Camping Grounds—so named because of the 150 towering maple trees along the road overlooking

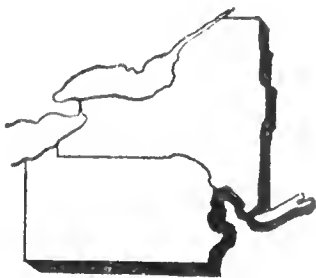
(Continued on Page 14)

A CONSTRUCTIVE FORCE IN NORTHEASTERN AGRICULTURE



Officers of the New York Association of the Future Farmers of America, elected at the recent Annual Convention. Left to right, seated: Henry E. Ketcham, Greenville, reporter; David Chase, Fayetteville, secretary; James Sattler, Boonville, president; Bruce Anderson, Falconer, treasurer; Garth Winsor, Harpursville, sentinel. Standing: Vice presidents Gerald Killigrew, Corning; J. Randal Burrows, Elba; Richard Engelbrecht, Madison (who was chosen Star State Farmer and top dairy award winner); Edmond Van Namee, Holland Patent; Ronald Hirschey, Lowville; and John Ferris, Slate Hill.

News and Views from NEW YORK AND PENNSYLVANIA



Deceased — Kenneth H. Fake (68) of Cobleskill, N. Y., died recently from a heart attack. An active Granger, Mr. Fake had served as Legislative Representative in Albany for the New York State Grange since 1943. From 1922 to 1932 he represented Schoharie County on the New York State Assembly.

Summer Tour — The summer tour of the New York State Horticultural Society will be to the fruit areas of

Pennsylvania. Tentative plans include meeting at Penn State University August 11; fruit farms south and east of State College on Monday; and a visit to fruit farms in Adams County on Tuesday.

Sweet Corn First — In vegetable acreage in Pennsylvania. Approximately 27,000 acres of sweet corn are harvested annually, with 15,000 to 18,000 acres grown for fresh use and the remainder for processing.

New Regulations — The Pennsylvania Department of Agriculture now requires frozen foods to be maintained at zero temperatures during manufacture, distribution and sale.

Honored by Bankers — Six Jefferson County families were honored by local commercial banks upon their graduation after three years of voluntary participation in the Extension Service Farm and Home Management Program. They were: Mr. and Mrs. Clarence Shelmidine and Mr. and Mrs. Donald Shelmidine, Mannsville; Mr. and Mrs. Richard Fitchette, LaFargeville; Mr. and Mrs. Sherwood Hoan and Mr. and Mrs. Maurice Briggs, Adams; and Mr. and Mrs. Albert Barbalich, Watertown.

New Course — The Agricultural and Technical Institute at Alfred, N. Y., has added a new 2-year course of study called "Agricultural Science." This course is designed to train personnel in the fields of research and testing.

Two National Meetings — The 13th National Potato Utilization Conference and the 50th anniversary convention of the Potato Association of America will take place in Riverhead, Long Island, beginning July 15.

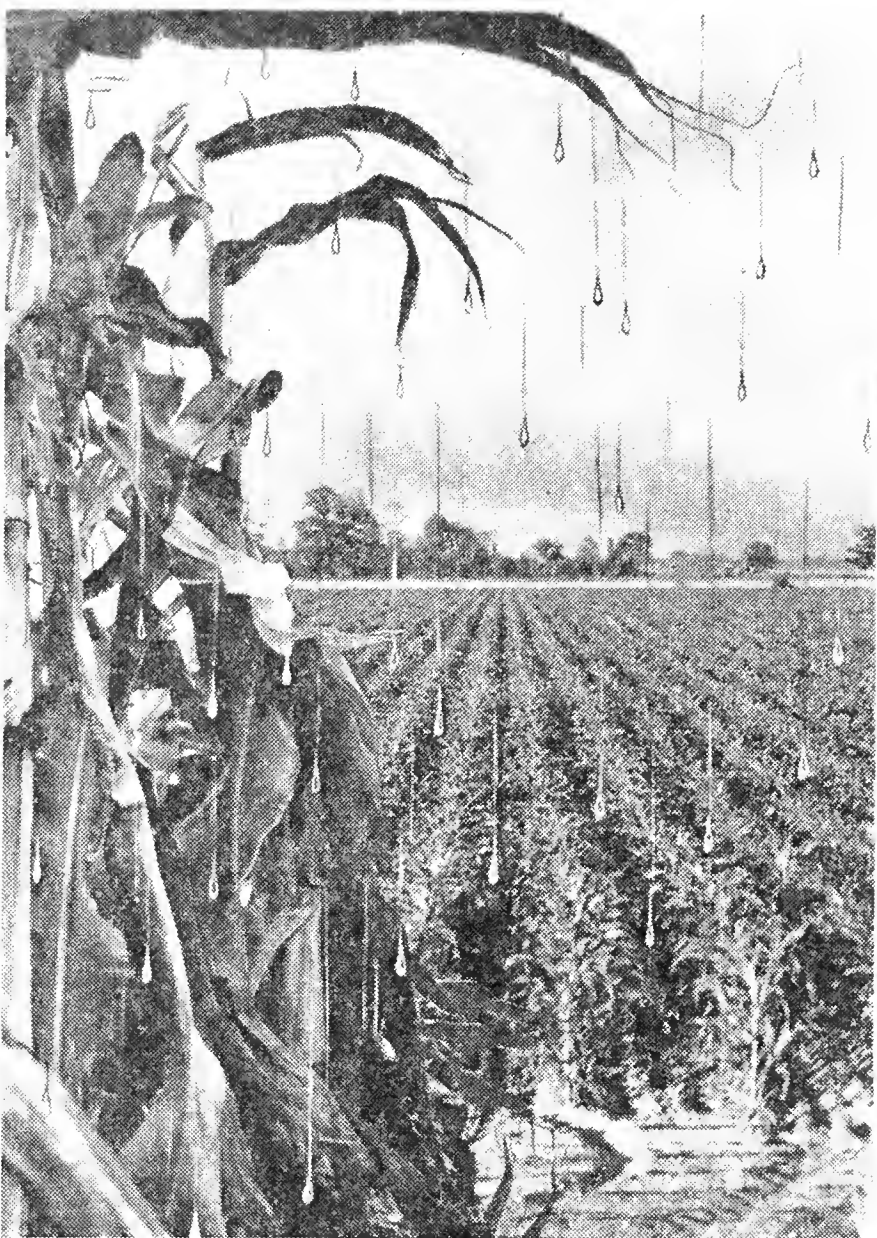
Top Dairymen — Twenty-one Livingston County, N. Y., DHIA herds reached 500 pounds fat in the 1962-63 testing year. The five highest collectively averaged 14,873 pounds milk testing 3.7, and yielded 558 pounds fat per cow.

Eastern Meets — Roland Osborne of Snedekerville, Pennsylvania, succeeded fellow Keystone Stater Lorton Blair of Columbia Crossroads as director of Eastern Milk Producers Cooperative at the last annual meeting of this organization. Officers, including president James Speers of Blair Mills, Pennsylvania, were re-elected.

College of Agriculture News — Professor John K. Loosli, teacher and research scientist in the Department of Animal Husbandry, and an authority on nutrition of animals, became head of the Department on July 1, succeeding Professor Kenneth L. Turk, who was recently named first director of International Agricultural Development in the College. . . .

The new wing of the U. S. Plant, Soil and Nutrition Laboratory at Cornell University was dedicated May 31 and named "a symbol of our progress in agricultural research. . . .

Food firms in Scotland, Germany, Sweden, and Greece are interested in producing Cornell's chicken sticks, hot dogs, poultry cold cuts, smoked chicken, and bake-and-serve chicken loaf. . . .



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Limited weight of individual stalks at harvest time makes adequate plant population essential for high yields. Now is the time to check. Here's how: Count the stalks in

a representative 50-foot length of row and compare with this table.

Row Width	14,000	16,000	18,000	20,000
28	38	43	48	54
30	40	46	52	57
32	43	49	55	61
34	46	52	59	65
36	48	55	62	69
38	51	58	65	73
40	54	61	69	77
42	56	64	72	80
22,000	24,000	26,000	28,000	30,000
59	64	70	75	80
63	69	75	80	86
67	74	80	86	92
72	78	85	91	98
76	83	90	96	103
80	87	95	102	109
84	92	100	107	115
88	96	105	113	121

A good guide for corn population is:

	GRAIN	SILAGE
New Jersey	16,000-18,000	18,000-20,000
New York and Penn	20,000-22,000	22,000-24,000

If your plant population is not right for highest yields, visit your GLF man and begin making plans for a 'profit' stand for next season. He will be glad to tell you how GLF Complete Crop Service is designed to produce greater net returns from your silage acres. Cooperative GLF Exchange, Inc., Ithaca, N.Y.





American Agriculturist

A CONSTRUCTIVE FORCE IN NORTHEASTERN AGRICULTURE

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OUR COVER STORY

No, we don't believe that farming is "going out" of the Northeast—far from it. But, in addition to the many acres of excellent farm land, there are millions of acres in this region that are not adapted to modern agriculture. Recreational use of some land may be a way to use it profitably for the benefit of all.

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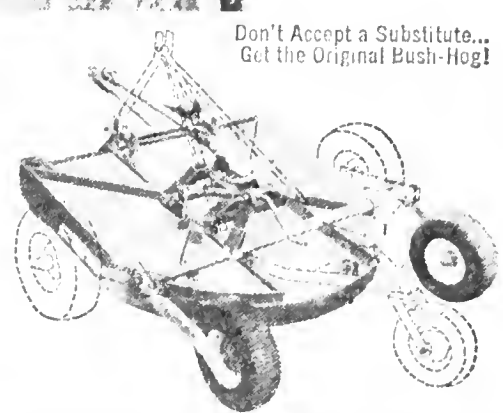
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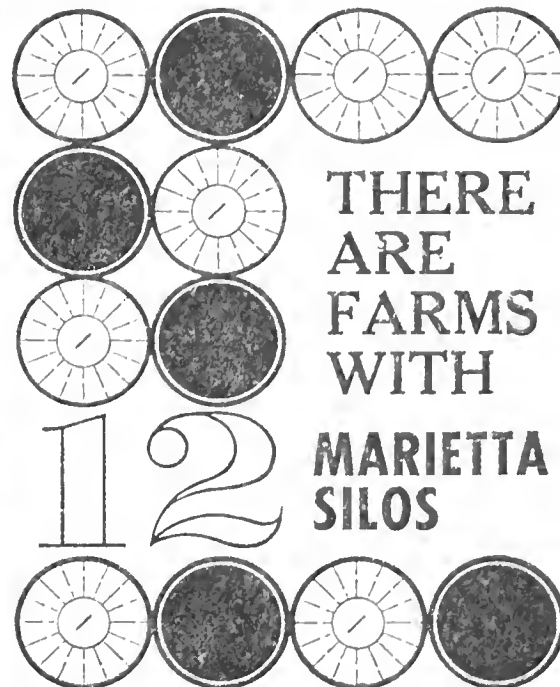
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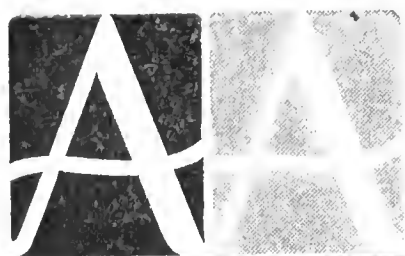
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EDITORIALS

BY GORDON CONKLIN



CHANGE AT AA

JIM HALL, who many of you have met personally and many more of you have come to know through the articles he has written, was named Publisher of American Agriculturist following the recent meeting of the American Agriculturist Foundation. Jim, who joined the publication team at Ithaca in 1946, already wore several hats in the organization as General Manager and as Circulation Manager. All of the folks at AA join in congratulating Jim, and pledge him our support in serving the rural people who live up and down the roads of the Northeast.

THE FAT'S IN THE FIRE

WHILE ATTENDING the last annual meeting of the Eastern Milk Producers Cooperative, I visited with a group of dairymen from Meshoppen, Pennsylvania (Wyoming County). One of them showed me a letter he had received a few days before from the dealer who handles his milk. It said quite bluntly that butterfat exceeding a test of 3.5 just wasn't really wanted. A key sentence was, "When culling your cows, please cull your high butterfat producers." The letter, which had apparently gone to all producers shipping to this plant, was a plea to get butterfat tests down.

Sunnydale Farms, in the Elizabethville area of the Keystone State, had already led the way by telling every producer that, beginning June 1, "Any farmer shipping milk of 4 percent or over in any month will not be able to continue to ship to us beyond 30 days after the month in which his milk tested 4 percent or over." A dairyman from Delaware County, New York, tells me that the management of a dairy plant at Stamford, New York, has notified its producers that anyone whose herd has a butterfat test of 4 percent or more should hunt for another market for his milk.

Whether we like it or not, dairymen and everyone interested in the dairy business should recognize this reversal of generations of emphasis on higher butterfat production.

SUGAR BEET DEBATE

ON PAGE 16, Hugh Cosline has pulled together information about the proposal to grow sugar beets in New York State. As with most anything, there are considerations plus and minus.

My reason for raising questions concerning this proposal should be made clear. I'm not against sugar beets, and I'm not bucking the government's tightly controlled sugar program that for many decades has created artificially high sugar prices in this country.

I have nothing against anyone who owns a prospective site for a sugar refinery, nor any grudge toward those people in Auburn who are unemployed and who need jobs that a sugar refinery might provide. If a politician can create a favorable image by obtaining sugar beet quotas for a particular area, that's his affair. I have no bone to pick, either, with businesses that would be involved with supplying a sugar beet industry. My major concern is for the growers; there are many in-

terests involved here, and I insist that the interests of growers should be of major importance.

Sugar beets may indeed prove to be the bonanza for everyone concerned that is predicted by some; it may be just what Central New York needs to replace some other crops that have been declining in profitability.

But if you will stop and think about all the folks you know, you will be amazed at how many of them have been divorced—at least once. That statistic about one marriage in four ending in the courts is only one item of evidence that we mortals make very important judgments hastily—and not always on the basis of all the facts.

I commend those who pioneer in new ideas and lead the way in new ventures — there is no personal criticism intended by asking questions. But we need to explore thoroughly any such proposal as this, and weigh the odds for success on an economic basis. It seems to me that we need more economic information to match the agronomic information being developed so well by the staff at the New York State College of Agriculture.

NO BEATNIK HERE

THE WORD has gotten around that the younger generation is going to the dogs. Young people, we are told, spend their time drag racing, getting in trouble with the police, and proving that they are Abel to raise Cain. I don't swallow this generalization as being typical—my prediction is that our younger generation will probably do at least as well as previous generations in running our troubled world—probably better.

Recently I received a copy of something written by Donald B. Benson, a young man who is a student at Norwich University. His father is Donald D. Benson, Director of Information for Cooperative Farm Credit at Springfield, Massachusetts. Here, in part, is what he said:

"Idleness is now accepted as a fact of life. Leisure, in replacing productive exertion as a major time consumer, has left a deep void. Millions of Americans are neurotic. Day by day our instability, frustration and misery increase. Without adequate work that must be faced, life itself is hard to face. The liquor industry booms as we seek out pleasure and try to escape from our boredom.

"If happiness is worth striving for, we must re-examine our society. The lives of beatniks are not happy; they are filled with despair and rebellion. On the other hand, the quest for fun or diversion is an empty one. When teenagers look for 'kicks,' they invariably find tragedy.

"How can we ignore the lessons of history? Only hard work and clear, decisive thinking have created good things. Our great nation was founded on the concept that individual expression through constructive endeavor is both important and sacred.

"This is our choice: We may accept nature's plan to continue and improve life or give in to a world without purpose. But, unless we choose the former alternative, a totalitarian system will take away our right to

decide anything! Surely, there are enough frontiers to conquer. We lack only the initiative to find the challenge, the excitement, and the joy of the well-directed exertion which each of us longs for and deserves."

You know, many of these young folks we tend to sell short can teach some of us old timers a thing or two. More power to them—and to the adults who inspire and encourage them to choose constructive paths!

THERE OUGHTA BE A LAW!

MOST FARMERS have heard the admonition—"buy your fertilizer on the basis of cost per pound of plant food." It's good advice, and heeding it knocks holes in some of the inflated claims made by "gimmick" fertilizers.

When anyone tries to apply the same idea in the supermarket, he runs into endless frustration. Ever notice that many things are packaged in odd-ball amounts? Manufacturers seem to delight in packages that hold 6¾ ounces, 14½ ounces, or some other funny number.

Having seen my dad pay for groceries with milk checks figured on the basis of 80¢ per cwt. in the '30's, and knowing the problems of meeting mortgage payments myself, I have developed great respect for the difficulty of coming by that folding green stuff. Besides, let's face it, I'm a tightwad when it comes to money—ask my wife!

On the rare occasions when I buy the family vittles, I try to compare brands on the basis of cost per ounce or per pound. But some joker in the food industry has stayed up nights to louse me up! Brand A contains 5¾ ounces per can and sells 3 cans for 62 cents; brand B has 4.65 ounces per can (avoirdupois—whatever that means) and sells 2 for 31 cents.

I say it's about time we progressed again to the point we had once attained — when prices could be easily compared on a cost per unit weight basis! In Great Britain, the quantity in which food items can legally be packaged is regulated so even a dumb cluck like me can get an answer with simple arithmetic. In that country, if the package weighs ½ pound or less, the contents must be in multiples of 2 ounces. Up to 2 pounds, foods may be packaged in multiples of a quarter pound. Sensible people, those British.

I've got a hunch we've been confused on purpose, so our best bet is to push for regulation rather than complain to the food industry. Here's a function of government for which I am heartily in favor!

GREENER GRASS

A NUMBER OF speakers I've heard recently have implied that businesses other than agriculture have a lead-pipe cinch when it comes to making money—because "industry operates in a controlled market." Some figures from Dun and Bradstreet, though, indicate the grass is not always greener on the other side. This firm reports that there were 32,520 business failures in the United States in 1960-61. "Business failures" included only those incidents involving court proceedings, or voluntary action likely to end in loss to creditors, but did not include those where everybody got out with a whole skin.

Reasons for failure were tabulated; they will be of interest to farmers, too. About half of the trouble came from inadequate sales, 21 percent from "competitive weakness," and 10 percent because of an inability to collect bills owed the business. Other reasons ranged all over the map, from marital difficulties to a poor location.



FARM DOLLAR GUIDE

NEW YORK STATE DAIRYMEN can still sell up to 100 quarts of **RAW MILK** per day at the farm. Ban due to begin July 1 has been rescinded by State Public Health Council. Raw milk can now be sold outside incorporations and villages in townships of less than 10,000 population. Counties still have power to forbid sale of raw milk.

USDA SAYS PLASTIC COVERS ON BUNKER OR TRENCH SILOS can reduce losses by 50%, saving 10 pounds of dry matter per square foot of surface. Is good investment even if used only one season.

SENATOR AIKEN OF VERMONT and three other senators (two being Democrats) have introduced in Senate a bill to repeal recent law extending feed grain program; it would repeal authority of Secretary of Agriculture to set wheat acreage allotments or marketing quotas. Beginning in '64, it would provide price supports for wheat at U.S. equivalent of world market price (average of three preceding years) or 50% of parity, whichever is higher. (The current world price is about \$1.35 a bushel; 50% of parity is about \$1.25.) Beginning in '64 there would be no acreage allotments for feed grains, and supports would be at 90% of average prices received by farmers for preceding three years (currently about \$1.00 a bushel) or 50% of parity, whichever is higher.

NEW YORK STATE DEPARTMENT OF AGRICULTURE gives figures on slaughter of dairy cows. At 57 auctions in first three months of '63, 4,700 more dairy cows were slaughtered than in same period last year—but 1,000 fewer heifers and 600 fewer calves were butchered, and sales of replacement dairy cows were up by 750.

U. S. MILK PRODUCTION for first three months of '63 was down 1% from same period in '62. Butter production was down 10%; cheese production 2%.

ONE WAY TO INCREASE AMOUNT OF FORAGE you can harvest is to topdress meadows after first cutting. On grass meadows use 200 to 500 pounds of 10-10-10 per acre or a nitrogen carrier giving 50 pounds actual N. On legumes (40% or more legume stand) use 200 to 250 pounds of material with ratios of 0-1-1 or 0-1-2.

The Song of the Lazy Farmer



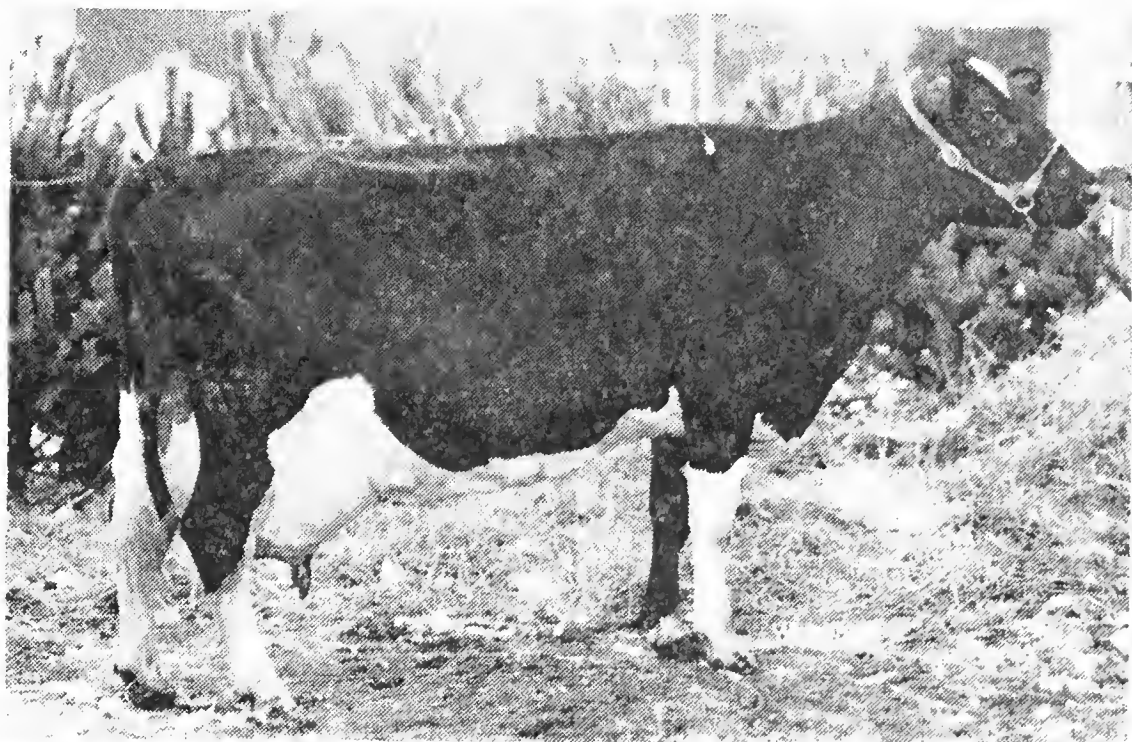
THERE'S nothing thrills me through and through like good hard summer showers do. When skies are covered by a pall of clouds and rain begins to fall, my pains and cares and worries flee, I feel like shouting out with glee. A July rain's a welcome guest, it's Mother Nature at her best; to me it is the only thing that is a perfect happening. No music-maker ever wrote a piece to match the tuneful note of raindrops plinking leaves or ground; the greatest artist never found a color like the one that's seen when rain renews the world's bright green.

I laugh when neighbor has a fit because the rain has made him quit his dawn-to-darkness toil outside and wait until his fields have dried. It's funny, but it's also sad, to see Mirandy fighting mad 'cause she can't hang out washing yet without it getting soaking wet. My neighbor's crops will get more good from rain than anything he could

be doing for them anyway; as for Mirandy, her gripe may be not so much that clothes won't dry as that I've got an alibi—there's not much work for me to do until this glorious rain is through.

Wayne-Fed Holstein Sets Pennsylvania 1962 Fat Production Record

Keystone Sun Edith 3607547 (VG-88)
Owned by George and Harold Hasbrouck, owner-operators of Hasbrouck Farms, Titusville, Pa.



8y 11m 305d 2x 25,325 lbs. Milk 4.4% 1110 lbs. Fat DHIA
8y 11m 365d 2x 28,466 lbs. Milk 4.4% 1239 lbs. Fat DHIR

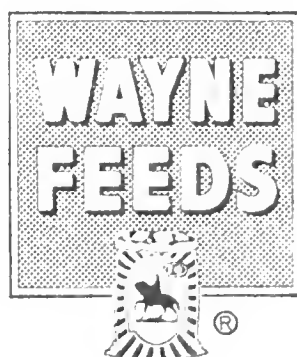
Keystone Sun Edith was named the highest producing Registered Holstein cow for fat for the 1962 Pennsylvania Dairy Herd Improvement Association testing year. Her 305 day record of 25,325 lbs. of milk, 4.4% for 1110 lbs. of fat set the 1962 mark. Her 365 day record of 28,466 lbs. of milk, 4.1%, for 1,239 lbs. fat is the highest record for fat ever made on official test in Pennsylvania.

This record-breaking cow was fed on *Wayne Test Cow* and *Wayne Fitting Ration* throughout her entire lactation in keeping with Wayne's "New Concept" program. The Hasbroucks say, "We are particularly pleased with the results of the Wayne Feeding Program since this year's record represents an increase of 101 lbs. of fat over this cow's last year high of 1,038 lbs. of fat."

Follow the lead of top dairymen all over the country and see your Wayne Feed dealer for the Wayne "New Concept" Dairy Feeding Program that can help increase the production from your herd. Do it today.

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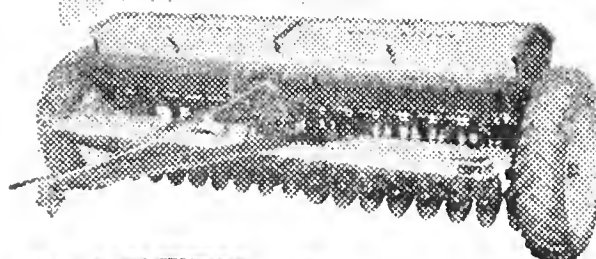
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Gayway Farm Notes

By HAROLD HAWLEY



VOCATIONAL AGRICULTURE

I have, off and on, been among those who questioned whether our vo-ag departments are still meeting a need. In many schools there have come to be very few farm boys taking agriculture. Some are taking college entrance, and others feel that the ag classes have been pretty badly diluted by the presence of so many non-farm boys. The instructor naturally has to move slower with the work because of these non-farm boys.

Recently I had the chance to attend a parent-son FFA banquet in a nearby school. We recognize that only a part of the boys join the FFA, the farm boys who really have an interest in the whole program. The effort and expense seemed well justified in that school by the accomplishments of the boys in the program, many of whom are going on to be farmers either right away or after further training.

I've been pretty concerned about running ag departments as "dumping grounds" for guidance counselors who have all too often figured that boys who couldn't make the grade somewhere else could always muddle through a course in agriculture. However, I guess this misuse hardly justifies eliminating the opportunity of this training for those who really want it.

Possibly a vocational training opportunity other than an agriculture course is what is needed, so that those who really want to take agriculture will get a good course and the others will get work better suited to their needs.

How Little It Takes

While we are on the subject, I sometimes wince when I see how little it really takes to get a high school diploma in some options other than the college entrance and business courses. The curriculum for some of the others is less than challenging, and when the student barely squeezes by in such courses, he or she has certainly received the barest minimum of an education.

This is heresy, but I doubt we do anyone a favor by making sure he gets a high school diploma. Better that we insist the diploma mean something—even if some can't qualify—which they can't and don't anyway. To my way of thinking, it cheats those who work and earn a real honest-to-goodness diploma when we grant them willy-nilly to everyone.

FARM-CITY GET-TOGETHERS

Only at this time of year can I tell farmers in an audience from the non-farmers. In winter they look pretty much alike. Come spring work, farmers take on that good outdoor look. Then when golf and week-ends at the lake get going full swing, the city brother also gets that well-browned look. I was re-

flecting on this at our county farm-city dinner and dairy queen contest.

Aside from the increase in understanding of agriculture and its aims and desires which the speaker tries to impart, the across-the-table discussions should go a long way to better the image people have of agriculture. Better we work at this the year around, though; each of us shares a responsibility to tell our story well and often.

We can be most proud of the fine youth growing up in our farm homes. The girls who competed in the dairy queen contest in Cayuga County the other night were a real credit to their parents, and a credit to the rural communities from which they came. Of course, there are hundreds more like them across the country—I was just proud to be a farmer when I saw so many attractive, poised, capable young ladies in that contest. And I was glad I wasn't the judge!

MORE CHANGES

By the time this is in print we will know a lot more about a couple of new gadgets than we do now. In the meantime, it's too soon to say much about a new windrower and windrow turner we just bought.

The windrower is a 10 foot, self-propelled affair with dual wheels and a special tined reel. It mows, conditions, and windrows the hay. We expect to turn most of the windrows over early in the haying season. The windrow turner is merely

two big wheels with tines. It fastens to the front end of the tractor, and these big wheels allow for fast ground speed without damage to the hay.

I can think of only two ways to justify such a large investment in haying equipment: we expect to save one man and still move faster than formerly; and, of course, we hope to put up better hay, as windrowing it green should help to keep all the leaves. After a little more experience we'll tell you whether it's as good as we hope—or whether it's better on paper than in the field. Several western New York farmers who have used them are pretty enthusiastic.

Dates to Remember

July 1 — First date for filing application Federal Gas Tax Refund for gas used up to June 30, 1963.

July 6 — Annual Keystone Ram and Ewe Show, Farm Show Building, Harrisburg, Pa.

July 10-11 — New York State Poultrymen's Get-Together, Cornell University, Ithaca.

July 10-11 — Summer meeting of the Empire State Soil Fertility Association, Carriage House, Watertown, N. Y.

July 12-13 — Maine Broiler Festival, Belfast City Park, Belfast.

July 13 — Annual Field Day, N.Y. Swine Improvement Association, Ted Keck Farm, near Dansville, N. Y.

July 17 — Statewide Connecticut Forage Field Day for dairy farmers (rain date July 18) Agronomy Research Farm, Storrs.

July 20 — All-Electric Farm Field Day, sponsored by the Connecticut Light and Power Company, Bass Farm, Scotland, Conn.

July 27 — Maine State Dairy Show, Windsor Fairgrounds.

July 30-31 — Four-State Summer Fruit Meeting, Treesdale Farms, Mars, Pennsylvania.

August 1-2 — New England Green Pastures Forage Forum, University of New Hampshire, Durham, N. H.

I'm Going to Russia To Ask Your Questions

By JIM HALL

I AM GOING to Russia.

Not on a paid-out-of-taxes government junket, but with a group of New York State farmers and farm leaders who have been officially invited to participate in a people-to-people mission and are paying their own way.

Why am I going?

For many reasons. First, I want to see with my own eyes, and to ask my own and your questions of the people who live behind the Iron Curtain. Perhaps I'll learn why we really know so little about a country that has been the subject of more books, articles and news stories than any other these past 20 years. We watch Nikita Khrushchev pound his shoe on a United Nations' desk; we read reports of Russian leaders calling Americans warmongers, Imperialists, tyrants, Negro-haters — and worse. Perhaps in visiting with farmers in several states of the Soviet Union, in Poland, Hungary and

East Germany, I may be able to learn how non-politicians feel about us.

I may be disillusioned, but I've always found that people are people, and I expect Russians (like Japanese, English, Belgians, Dutch and other nationalities I've known) to have many of the same ambitions and ideals we have. Perhaps I'll find they are not as sold on Communist ideology as their political leaders. Are we as sold as are the Kennedy family on the present Administration's idea of how a democracy should be governed? (Don't answer that. I'm not looking for argument — just trying to keep an open mind on this trip!)

President Eisenhower, who is chairman of the Board of Trustees of the People-to-People program, stated in a message which I received: "Men must understand one another before nations can. If people get together, so eventually will gov-

(Continued on Opposite Page)

— American Agriculturist, July, 1963

I'M GOING TO RUSSIA

(Continued from Opposite Page)

ernments." His message said, in part, "You are urged to participate . . . help bring about better understanding between people . . . the problem is for people to get together and to leap (if necessary, evade) governments, to work out not one but thousands of methods by which people can gradually learn a bit about each other."

Your Questions, Please

The Russians may learn a little bit about us, and I hope our group will be able to get many answers to questions we have about Russia and Russians.

As only one American in 19,000 will visit the Soviet Union this year, and I'm fortunate enough to be one in a farm delegation visiting their

farms, I want to share my opportunity with you by trying to bring back answers to questions you would ask if you were going along.

I'll outline where we are going, whom and what we expect to see; then send your questions addressed to me at Box 367, Ithaca, N. Y.

Under the leadership of Harlo Beals, a retired G.L.F. executive, our group of 20 dairy farmers plus a sprinkling of crop, beef, poultry, vegetable and fruit farmers, representatives of milk co-ops, the New York State Extension Service, and others whose business is with farmers, fly to Manchester, England, on August 2. The 48 of us will spend three days on English farms swapping information, then go to Brussels for a couple more days on Belgian farms.

From there, we go directly to Moscow to visit with officials in

their capital, and to see as much Soviet agriculture and farm industry as we can. We will then spend a couple of days on big collective farms down in the breadbasket of Russia, Ukraine, which borders the Black Sea. They tell us that after two days of the 95° weather in that area, we'll be anxious to get back to Moscow for a day!

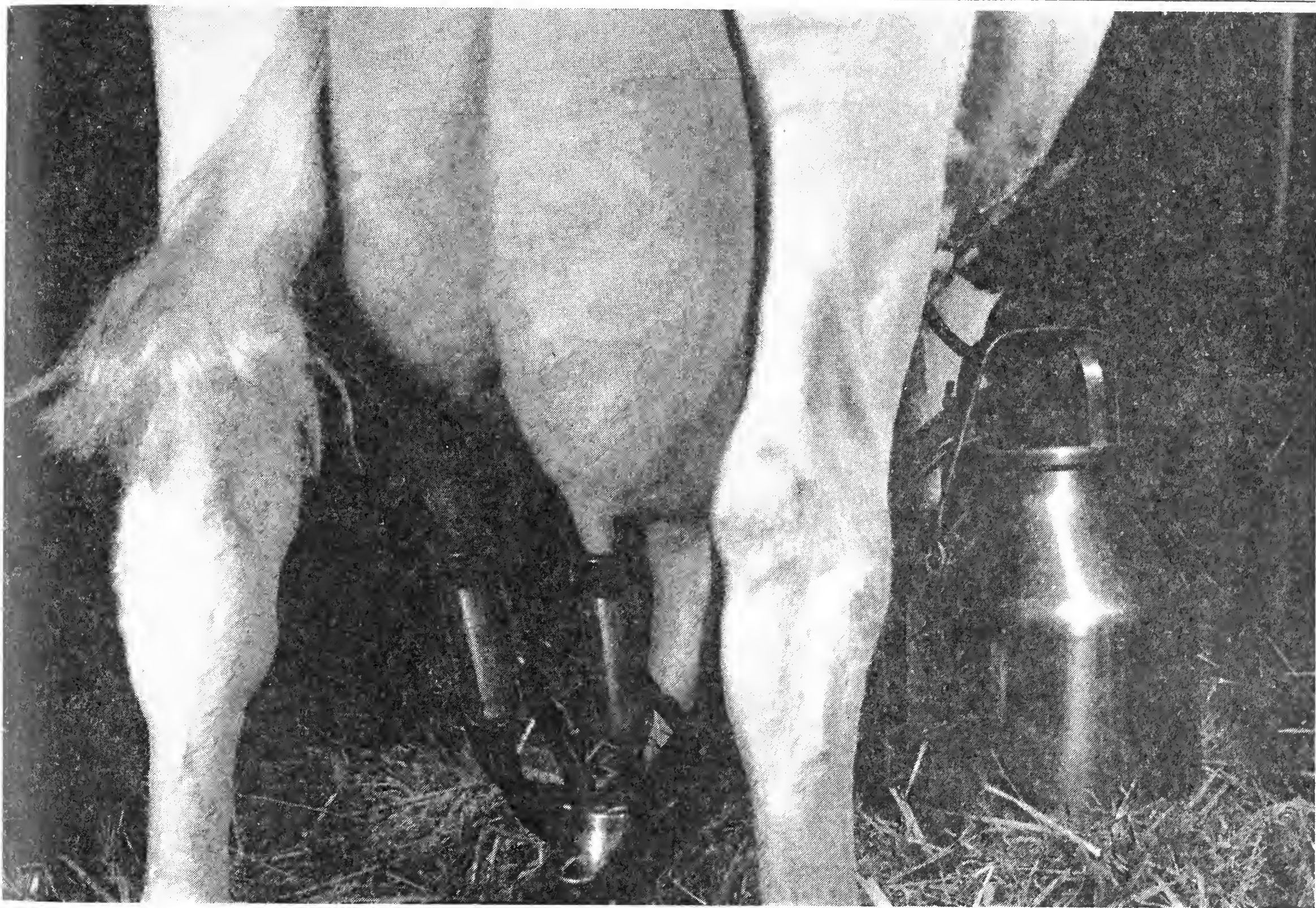
We then leave Soviet Russia and visit two satellite countries, Poland and Hungary, spending most of 5 days in the farm areas around Warsaw and Budapest. From Budapest it's a short hop to Cologne, West Germany, and an hour through the air-corridor to Berlin, where part of the time will be spent on the Russian side of the wall. God willing, we leave Berlin just before lunch on our last day and eat dinner in New York.

I risked boring you with this

travelogue to save you wasting time sending questions about areas we won't visit.

What do **you** want to know about people where we'll visit? Length and kind of schooling? Extension teaching? Availability of papers, magazines, books, libraries, food, clothing, shelter? Their income or how they spend vacations? Taxes and how they compare with a generation ago - or with ours? Do women really hold most of the professional jobs? Crops? Equipment? Farm ownership?

I'll do my best to get the answers from those I talk with and from what I see. But, please try to keep the questions short - and please send them in right away to give me time to get them all boiled down and organized so that I'll have a chance of getting as many answers as possible.



Gentle De Laval milking improves teat and udder health

(it figures . . . it's the new fast-milking De Laval)

Your cows' teats and udders will be softer and more pliable when milked with the new fast-milking De Laval. It's that *gentle*.

For example, Norman Allen milks 100 cows in Washington County, New York. He says: "I thought the other De Laval was gentle, but these new units even top them for gentleness. And we're milking 25 minutes faster, with one less unit than before."

Before switching to the new fast-milking De Laval, Joe Hentrick of Platteville, Wisconsin, used a different make. Joe says: "These new De Laval units are really fast and leave

the udders in great shape. We're milking 30 cows and saving 20 minutes each milking with De Laval units."

In fact, veterinarians who examined cows before and after milking with the new De Laval report herd health improved from 10%, where conditions were already good...to an improvement of 84% in some cases.

One reason for better udder health is that

Only 10% down, up to 4 years to pay.



the new De Laval will milk your cows 25% faster than your present milker. That's right, *25% faster*. Also, new De Laval one-piece *stretch* liners are narrow-bore, soft and pliable for real cow comfort.

Add to this De Laval's absolutely *uniform* 2.5:1 pulsation, plus dozens of other new and exclusive features. Now try the new fast-milking De Laval on your cows and see for yourself how fast and gentle it milks.

Phone your De Laval dealer today for a free trial. The De Laval Separator Co., Poughkeepsie, N. Y.; Chicago 46, Ill.; Millbrae, Calif.

Nails with HOLDING POWER for Farm Structures

WHAT we call a threaded nail today was first designed some thirty years ago, but over the years there has been a good deal of development and refinement of the initial idea. Much of the testing of new types of threaded fastenings has been conducted at the Wood Research Laboratory at Virginia Polytechnic Institute, under the sponsorship of The Independent Nail Corporation of Bridgewater, Massachusetts.

In the past three decades, thousands of varieties of threaded nails have been developed. Varied threads may be used to adapt a fastening most effectively to a specific problem. Further, the heads and points can be modified. Various metals are being used — some that contain iron and some that don't. Also, heat treatment can be applied to add strength and stiffness to a fastening.

There are three specific varieties of threaded nails available today:

By DR. E. GEORGE STERN

Department of Wood Construction
Virginia Polytechnic Institute

wood. Second, repetitious temperature changes result in differential expansion and contraction of wood and fastener. Since wood is good insulation it expands slowly around the nail, which on the contrary is a good conductor of

they are less likely to split wood, they can be spaced closer together and nearer the end of the wood, and usually driven without pre-drilling.

Here are at least eight useful farm applications for threaded nails:

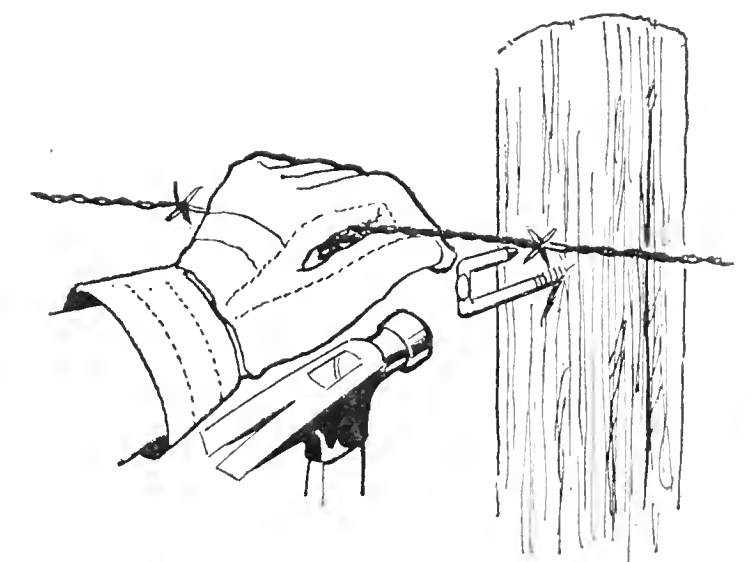
Pole-type structures — In recent years, pole-type construction has become increasingly popular because of the availability of satisfactory creosote-pressure-treated poles. While creosote-pressure treatment has offered long life for poles, oil used in the impregnating process acts as lubricant for nail shanks driven into treated wood. This substantially reduces the holding power of plain-shank nails.

Fortunately, the answer to this problem is readily at hand—properly threaded nails and spikes used when fastening creosote-pressure-treated poles and timbers. The relatively great initial holding power of threaded nails and spikes does not decrease during the seasoning of the wood into which they are driven, nor is it substantially reduced by the presence of oils. As long as the wood remains sound and free from decay, the holding power of threaded nails remains as great as it was to begin with.

It may be somewhat surprising to point out that the use of properly threaded nails for pole-type structures results in a considerably more rigid structure than if bolts were used. A bolt must be inserted into an oversize pre-drilled hole and can therefore move within the hole. In contrast, the nail is driven tightly into the wood, and the friction between the threaded-nail shank and the wood is considerable.

Trussed rafters — One clear-span pole-type structure developed at the Wood Research Laboratory is a building in which the trussed rafters span a 40-foot expanse. A new scissor-type trussed-rafter design allows for a clearance of 9' or more from the center of the building, with the side walls only 6½' or higher.

These and other all-nailed trussed rafters can be built with hammer and saw. The lumber can be old or new, rough or plain, green, air-seasoned or dry. Threaded nails can be driven from one side, rather than two, since the threaded point end is as effective as the head end of the nail. This eliminates, of course, the need for clinching the nail.



Fencing—For years the common "U" shaped fence staple has been a necessary evil. A new modified "L"-shaped staple with threaded shank allows a farmer to drive the staple until firmly secured in the wood, then hook the wire before making the final blows to drive the short end of the staple into the post. It is no longer necessary to hold both the wire and the staple in one hand during staple driving, a requirement which previously frequently resulted in mashed thumbs.

Metal roofing—For the past few years, lead-headed or lead-washed nails have been used to fasten sheetmetal roofing. However, these fasteners do not provide an effective resilient seal and they also create galvanic corrosion under certain conditions. The next nail devel-

(Continued on Page 25)



Helically threaded —

These turn as they are driven, forming threads or grooves in the wood. They are useful for softwoods as well as hardwoods. They have great lateral load-carrying capability, and are not apt to pop out as easily as do regular plain-shank nails.



Annularly threaded —

When substantial nail-holding power is required in softwoods, the annularly-threaded nail is recommended. During driving of an annularly-threaded nail, the wood fibers slide over the thread shoulders into the annular grooves and act like wedges.



Helical threads of short-lead angle—

This nail combines the advantages of both types already mentioned. It is very useful when high lateral load-carrying capacity is required, together with maximum resistance to nail withdrawal, especially in softwoods.

Unseasoned Lumber

Threaded nails are unsurpassed when using less than fully-seasoned lumber. As green and partially seasoned wood dries out, it shrinks; this is accompanied by a corresponding change in the dimensions of the wood. For example, the average piece of 2 x 4 Douglas Fir shrinks ⅛" to ⅜" on a 4" dimension when it is dried to a moisture content of 12 percent. It will shrink further from 9/26" to ¼" when seasoned to 6 percent moisture.

What does the shrinkage of green wood mean in terms of fastenings? As wood seasons, it tends to shrink away from the shank of the nail imbedded in it; this makes it easy for the plain-shank nail to be pulled out. Also, the moist wood that is in direct contact with the nail can deteriorate because of the formation of iron hydroxide around the nail. Studies at Virginia Polytechnic Institute have shown that the ordinary nail, when used with partially seasoned lumber, can lose 80 percent of its holding power.

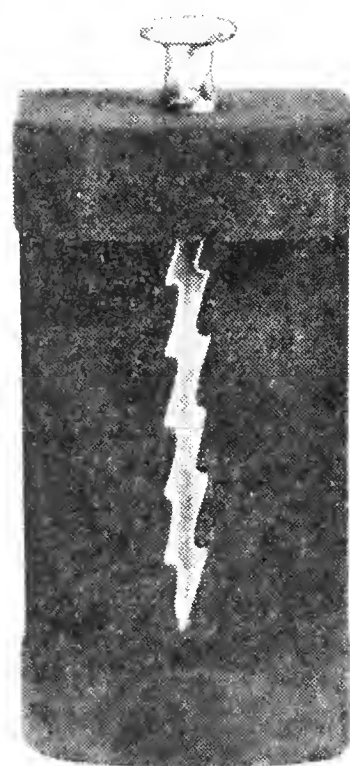
Nail Popping

The dimensions of even fully-seasoned lumber vary with differences in atmospheric humidity and with temperature changes — the result is nail popping.

Four types of "nail pop" have been described. In the first, the smooth-shank nail or staple may become loose during cyclical physical expansion and contraction of the

heat and cold, thus expanding and contracting faster than the wood.

A third type of nail-popping is due to the "shrinkage effect" of green or partially-seasoned lumber. The fourth example of "nail pop" results from outside forces acting upon the nailed joint. Shock, impact, vibration or compression can result in such a failure. All four forms of popping can be minimized or even eliminated through the use of properly threaded nails.



Apart from benefits related to changes in humidity and temperature, there are a number of other advantages of threaded nails in farm construction. After nails are threaded and hardened, they are far stronger and stiffer than the traditional fasteners. As a consequence, hardened threaded nails may be at least one gauge smaller than traditional nails for many applications.

Because threaded nails can be more slender and shorter, they can be driven faster; since



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FORAGE
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BIG-CAPACITY IH 50
***chops a ton
a minute***

SHORTER THAN 1/4 INCH!

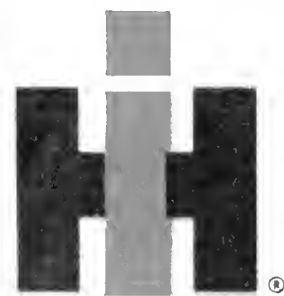
Fill silos fast at a 65-ton-per-hour clip with the big IH 50 Forage Harvester. 7½-foot cutter bar lets this champ of the 2-row class green-chop up to 50 tons per hour. Double-windrow pickup handles 30 tons of haylage an hour. Yet, the No. 50 costs less than most other 2-row choppers.

Exclusive 9-knife, cylinder-type cutterhead cuts short 13/64-inch lengths—finer than any other chopper. Simply shift gears to change length of cut. Switch harvesting units in 10 minutes or less. Dial the hitch, swivel spout from side to rear, and reverse feeding mechanism right from tractor seat. Sharpen knives in minutes without removing. Just think of the time that will save!

Ask your IH dealer for a free trial right in your own field. See the big No. 50 and take a look at the low-price No. 16. Both forage harvesters give you extra capacity and finest cut for your chopper dollar.

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World's largest manufacturer of farm equipment



A COUNTY AGENT LOOKS AT THE "FARM PROBLEM"



By John A. Birkland

*County Agricultural Agent,
Erie County, N. Y.*

THE IMPACT of the squeeze on profits is being felt throughout our economy. Agriculture is not unique in feeling this—it has company from business and industry, and even labor. Labor? Yes, labor—much of our unemployment is due to the profit squeeze—when business or industry finds it is no longer profitable to hire a worker and does without him, or develops a new process that does the job cheaper with less labor. The result is the same—more people are out of jobs.

While agriculture has company it perhaps has the distinction of enduring the squeeze somewhat longer than the others. Shifts in demand, the tremendous expansion of new science and technology, the slowness of some to make necessary adjustments, and other things have contributed to this.

Emphasis On Price

For a long time—more than thirty years—agriculture has focused on **price** as the key to unlock the gate of Utopia and solve the problem. Price, however, is only part of the problem—production costs and volume of production are equally as important.

This fact was probably brought home most forcibly by the operations of the so-called Steagell Amendment in the years following the end of World War II. During the war years it was the national policy to encourage food production. Price supports were raised—to 90 percent of parity—credit was made easier, and the expansion of agriculture was fostered as an aid to the war effort. The policy was successful—agriculture was in high gear during and at the end of the war, in spite of shortages of materials and labor.

Adjustment

With the end of the war it appeared that an adjustment was inevitable. So the high war-time price supports, scheduled to die at the end of the war, were extended for two years under the Steagell Amendment. The purpose was laudable—it would provide a two year period for agriculture to get back in adjustment to peace-time conditions. But it failed to reckon with a couple of things—men and materials once again returned to agriculture and the resources of science and technology, diverted in part during the war, gave increased attention to agriculture.

The application of all these things increased production and also reduced costs in a majority of cases. With prices guaranteed, agriculture prospered. Instead of adjustment, the situation encouraged the opposite; production increased and surpluses mounted. The day of reckoning was postponed by further extensions of the high war-time supports, and eggs piled up in caves, potatoes were colored purple, and warehouses bulged. Acreage allotments, in an effort to reduce production,

lagged far behind the ability of agriculture to adopt new techniques, ever-better equipment, more fertilizer, and the newly available insect, disease and weed control chemicals.

As the situation worsened, an aroused public called for adjustments. Reforms were made—supports and allotments were dropped from potatoes; poultry, eggs, and meat were no longer supported, and a sliding scale of price supports was adopted to replace the rigid support level. By now the new agricultural revolution was under a full head of steam. Adjustments were painful, but they were made, especially in the now freed section of agriculture.

But even with the sliding scale of price supports, problems continued. The support prices did not perform the historical function of prices—the reflection back to producers of the situation in the marketplace. Rather, they were set, not to reflect actual conditions, but still as the key to unlock the gates of Utopia and solve the farm problem. And the wonderful cornucopia of American agriculture ground out its ever-increasing abundance. Bins bulged and supplies of supported commodities increased.

Another Leg

After nearly three decades of attempting to build a three-legged stool (the three legs — volume, unit costs, prices) with the one leg of price, agricultural policy-makers began to feel that perhaps a second leg would add stability to the structure. The second leg was to be volume, and efforts to deal with it were to be called supply management. It was felt that a leg of this type would help shore up the somewhat splintered and bruised leg and make it much stronger. (This recognized that the law of supply and demand hadn't been repealed yet.)

Now, there is nothing wrong in adjusting supplies to demand. It is as old and funda-

mental as economics itself. The law of supply and demand itself implies that supplies are adjusted to demand, and tend, in a free economy, to seek a balance with each other. But the building of the new leg to our cost-volume-price stool has attracted a lot of contractors, all eager to put in their bids on building it.

One lot favors the use of the power of government to enforce or control supplies, with all producers sharing in the cut. Another set of contractors eager to go to work favors a modification of this—using marketing orders permitted by government and enforced by government, but establishing them on a market area or production area basis rather than nationally. (This is already being done, and has been done for years with some crops—e.g. citrus crops and walnuts.)

Another group favors increasing farmers' bargaining power—not by using the powers of government as such but by farmers associating voluntarily, and controlling sufficient supplies to carry some weight at the bargaining table. And there have been many others with variations of the above.

NFO Approach

Perhaps one of the most publicized efforts to manage supplies voluntarily was tried in the fall of 1962 in September and October by the NFO—the National Farmers Organization. Active in the Midwest, it sought to increase hog and cattle prices by the two-pronged approach of contracts with processors and withholding of shipments to force processors to sign them—essentially the tactics used by organized labor. The effort failed through not having control of sufficient supplies, and because the withheld livestock had to come to market eventually anyway.

Some of these approaches have glamor and appeal. Supporters present the argument that labor has a bed of roses—labor can enforce its demands through strikes and improve its welfare and do less work. But this ignores the other side of the coin that jobs are lost, plants move to other areas, and that bricklayers and electricians earn much more than do garment workers and store clerks, even though all may be unionized. Some point to industry and business and say that these can adjust their supply and control their prices and profits, ignoring the fact that some industries decline and plants close because the management cannot do just that.

Other Problems

Supporters of the use of economic force — attempts at total or at least majority control of supplies—often do not take into consideration a couple of problems that other groups, like labor and industry, don't have.

The first of these is the problem of **substitution**. In a supermarket today a housewife doesn't have to buy any particular product—not when she can choose from among 5,000 to 10,000 different items on the shelves. The use of force, when it results in unrealistic prices, can guide her into choosing something else. **And once a product is priced out of the market, it is often difficult for it to gain back its popularity and lost consumption.**

The second problem involves storing up **demand**. Unlike other products—cars, washing machines, sheets, and shoes—it is impossible to store up demand for an agricultural product. The milk not drunk today or the lettuce or strawberries not eaten yesterday will never be eaten. Something else has taken their place. On the other hand, people will wait weeks, months, or years for a car, T.V., or a new roof on the house.

So which way is up? If the above is true, we can point to a couple of principles at least that should be at the rock-bottom of any effort to improve our farm situation. These are:

1. Neither price supports nor supply management, whether through voluntary bargaining, marketing orders, or government edict,

(Continued on Opposite Page)

— American Agriculturist, July, 1963

PERSONAL FARM EXPERIENCE

COLONY CAGES

WE USE 3' x 4' cages for our 12,000 laying hens—20 birds to a cage. At various times, we've experimented with 25 birds per cage, but we think that 20 are better. Invariably, egg production seems to drop 10 to 15 eggs per bird on a 12 month basis when they're squeezed with more than 20 in this size cage. Our birds are debeaked by cutting the top mandible back close to the nostril.

The poultry house is 38' wide and has three double rows of cages lengthwise. One 42" fan and two 24" fans are manually controlled; two 36" fans are operated by thermostats. The system is designed so that it can move 4 cubic feet of air per minute per bird. We haven't had any serious disease problems since starting to use this house 4 years ago, and believe that good ventilation is the key, especially in winter. Temperatures are controlled far better than with our old houses; the birds are up out of their manure; everything is clean and dry. I'm convinced that these things make a whale of a difference in disease control. Our old buildings, by the way, are being used to grow pullets.

Moving Air

Temperatures in the newer house have risen to as high as 90°F., but we had no trouble and didn't even see birds panting. Somehow, the turbulence of the moving air has a cooling effect even though it's hot. One muggy summer night the power went off for 4½ hours. No birds died, but I'd hate to see the ventilation system inoperative much longer than that. Of course, when the power is off, both fans and lights

A COUNTY AGENT LOOKS AT THE "FARM PROBLEM"

(Continued from Opposite Page)

can set aside the law of supply and demand and the competition it involves, any more than can a series of dams in a mighty river prevent the water from reaching the sea.

2. Agriculture must rely on facts and realities, not emotion and wishful or fuzzy thinking. It must know the market, know what competition is doing and is capable of doing, gain the information necessary to measure supply and demand, and be willing to adjust to the realities of the situation. Food and manufactured products are produced only because other people want them, and prices and production must be adjusted according to the needs and wants of these other people — the market.

If we go back to our stool, we find that our policy-makers have ignored costs, and rightly so, because how could a national or even marketwide policy be developed that could reduce costs uniformly?

The influence of different decisions on unit costs is not generally appreciated. Many do not have the tools — the farm business records — to build a straight strong leg on their stool. What items of equipment will reduce costs the most, or keep them from rising? What expenditures will reduce costs per bushel, dozen or hundredweight: which will increase them?

It's important to know.

are off — heat output from the birds decreases when lights are out, so temperatures don't jump as fast as they otherwise might if lights were on.

To care for our 12,000 birds requires about 5 man hours per day—one for handling manure, one for feeding (with a gasoline powered feed cart), and three to handle eggs (shipped unwashed and ungraded). Everything except manure handling is fairly simple. Manure is normally hauled every day, although it can be held 4 or 5 days if weather is bad or an emergency arises.

Manure handling equipment in-

cludes a dairy barn cleaner (equipped with stainless steel cables) that pulls droppings to a cross trench from which they are conveyed to the spreader. The cleaner is operated twice a day, but the spreader is used only once daily.

We have 150 acres in the farm, 70 acres of which are tillable and on which we grow corn. We figure 10 acres of land will handle the droppings from 12,000 birds if manure is plowed under. Two acres are left open in summer for spreading manure during that season; the rest is planted to corn. We're planning on expanding, probably by another 12,000 layers, and believe we have plenty of land for additional manure disposal. Naturally, putting poultry manure this heavily on grass would burn it to a crisp.

As for some operating details, we

buy feed (crumbles) by the carload shipped direct from the manufacturing point. Each porcelainized fountain serves two rows of cages; water runs continuously. We change 6,000 birds at a time when they reach the end of their production period, rather than trying to do the whole job at once. Lights are 40 watt bulbs, spaced at 12 foot intervals in four rows that are 11' apart. This means a row of lights on both sides of each of the three double rows of cages.

The big advantage of the new setup is that less time is required. We're spending less time caring for these 12,000 birds than we used to with 4,000 in the old building! And production per bird has been very satisfactory, in fact higher than with our previous setup. — Thomas Todd, Dryden, N. Y.

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Silo Filling Equipment

By Tom Clague



THE USE of silos and silo-type structures has increased a great deal in recent years, as we see more and more tonnage of corn silage, grass silage, haylage, etc. being used. In addition, a lot of high-moisture grain is stored in structures of this type. And practically all of the feed is put into these structures with a blower.

Other conveying devices come to mind that might seem to be possibilities, such as the elevator or the auger, but they have not yet become important for this work.

Consider the elevator, an efficient machine for moving materials. Millions of bushels of grain are moved by permanent vertical elevators, and by portable elevators which operate on an angle, perhaps about 45°. So far there has not been developed an economical portable vertical elevator that could be used for silo filling. And the possibility of filling a 70 foot silo with an inclined portable elevator is a little impractical, when you consider that the elevator would have to be about a hundred feet long. Of course, a few farmers are successfully using elevators to fill shorter silos, especially if they have other reasons to have a long elevator.

Augers, or screw conveyors, are also effective materials-handling devices, but they have not been adapted to the silage problem. They may be some time, but it hasn't happened yet. Silage is more difficult to move than grain, because it is wet and fluffy.

Capacity Important

The blowers available today are capable of moving large quantities of material. Up to a point, the more horsepower available the more they will handle, because it takes about one horsepower, delivered to the blower, to move one ton per hour. Thus, it would take 70 horsepower delivered to the blower to handle 70 tons an hour—and this is quite possible with many machines today.

There are several considerations to be taken into account when a blower is purchased today. Do you want belt or pto-drive? Do you want a blower with a conveyor or just a hopper? If you need a conveyor, do you want one with an auger, a raddle drag, or a belt? Do you want pipe that is nine inches in size, or eight inches?

Actually, the most important consideration is capacity. Since this is so closely tied to the power available, your first step may need to be to decide what you will use to power the blower. If you want to handle 50 tons per hour or more, you'll have to have a big tractor to do it.

This decision made, then consider the question of pto or belt.

There is quite a bit to be said for the pto approach. You don't have to stake down the blower; you don't have the nuisance of lining up the tractor for driving by belt; if you get a slug, you don't throw the belt off; you don't have the expense of the belt. Unless there is some reason why it's impractical, you'll probably want to use pto drive for your blower.

Hopper or Conveyor?

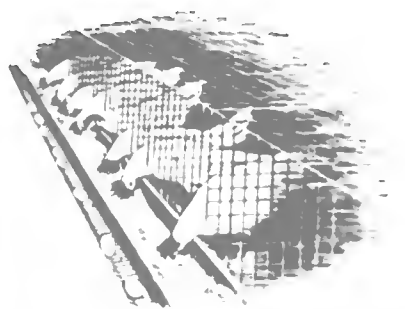
A decision about a blower with a hopper or a conveyor depends upon your wagons. Wagons with cross conveyors that unload at a front corner must be used for a hopper-type blower. If you are considering the purchase of such wagons you may want to time this with your blower purchase and get a hopper-type blower. These wagons run \$1 000 and up, with capacity of from two to five tons of corn silage each. Since this type blower may cost \$300 less than one with a conveyor, it is worth consideration.

Which type of conveyor on the blower? Auger-type conveyors are considered dangerous, and not many manufacturers use them any more. They have caused many serious injuries. This leaves belts and raddle drags. Belts are safe, and quiet in operation. The raddle and chain drag has one disadvantage — if it breaks, it can go on into the blower and cause damage. This might not be the final determinant, but it must be taken into consideration.

Then there is the pipe size. Some are eight inches, some nine inches. The popular idea seems to be that the nine inch pipe has more capacity, but some engineers question whether this has been clearly proven. If the larger pipe has an advantage it would seem to be with wilted hay; with corn silage, the difference seems slight. And with hay being cut more finely, the advantage of the larger pipe seems to be lessened.

Hay crops are harder to blow, in general. They are stringy, may wedge, and the juices get sticky and tend to break the motion. It is common to add water as the material goes into the blower, to help keep the inside surfaces washed clean, for easier operation.

All of these individual considerations are important, but really the first problem is to balance the capacity of your blower-tractor combination with that of your chopper-tractor combination and your hauling capacity. This will avoid bottlenecks, wasted time, and lost investment.



Poultry Waste Disposal

CHARLIE OSTRANDER, poultry extension specialist at Cornell University, was one of the speakers at the recent National Symposium of Poultry Industry Waste Management at the University of Nebraska. Here's an interview with Professor Ostrander summarizing his own thoughts on poultry waste disposal, and information he learned from others attending the Symposium:

Just what is this waste disposal problem all about anyway — I thought we had fewer hens than we did years ago?

That's right, we **do** have fewer layers in this country than we did a decade or two ago, but we're concentrating them in very large numbers. In the Northeast, at least, we have very little problem of manure disposal from our houses using litter—the pinch comes with the high density operations.

The magnitude of the problem can be understood from the fact that we are producing about 278 million pounds of poultry manure **every day** in the United States. Each hen produces approximately one pound of manure for each pound of feed eaten—about $\frac{1}{4}$ pound of manure per hen per day. In a building housing 100,000 layers, about 25,000 pounds (over 12 tons) of manure are being produced daily.

Mechanical cleaners must be operated at least twice and sometimes three or four times daily, just to be able physically to move the material. Statistics show approximately 300 million layers in the United States, and we estimate $\frac{1}{3}$ of these are in high density plants — this means we must remove the waste from 100 million layers practically every day! When you consider that this material is in the range of 70 to 80 percent moisture—about the consistency of a wet concrete mix—it is obvious that here is a pretty complicated disposal situation.

As a thumb rule, waste disposal from 12 hens is equal to that in connection with one person. Therefore, 120,000 hens present the same waste disposal problem as a city with 10,000 people. Just check out some time the cost of building a municipal sewage disposal plant for that many people.

Waste disposal can cause public relations problems for poultrymen, too, can't it?

That's putting it mildly! When mechanical cleaners are used, odors are released every time the cleaner operates. These odors are pumped out into the air by the ventilation system, and noses wrinkle for miles if the poultry house is near centers of population. Odors can be a special problem where daily spreading of material is required, unless it can be put in some isolated area where only the bears and foxes are troubled.

Many poultrymen just don't realize the magnitude of this waste disposal problem. It would seem that the logical answer is to locate large poultry buildings in areas where there aren't very many people who are likely to object, and where there is plenty of land to spread manure.

However, I remember seeing a

house for 100,000 birds out in the middle of a desert in California. There wasn't a soul around to object about any odors, but the guy got in a financial jam and the first thing he did was sell a chunk of land for a country club and golf course right next door to his poultry building! Sooner or later there will be petitions being signed and the fun will begin.

In Sullivan County, New York, the egg business grew partly in response to the profitability of selling eggs to vacation resorts in the area. But now it has grown far beyond that, and poultrymen are having a real problem with resort hotel owners who object to waste disposal methods and inevitable odors.

What are some ways to meet the situation?

Well, of course one way to handle it would be to run the birds on litter where the cleaning is done once or twice a year and the material being handled is down to a 20 to 30 percent moisture product. However, the move is toward high density cage operations — for a number of reasons.

Lagoons have proved somewhat satisfactory in warm climates, particularly where the weather is also dry, as it is in California. However, the meeting in Nebraska re-inforced my own conviction that lagoons are **not** the answer for the Northeast — that, at best, they are only a stop-gap measure here. They just require too much area for aerobic digestion of waste materials without odors. Our climate is too low in temperature and sunshine to make this method satisfactory.

What I like to call a **hydraulic system** of handling manure holds real promise. This is **not** an "indoor lagoon" as sometimes referred to, because there is no photosynthetic action as with a true lagoon. It consists of tanks under the cages, at least 3' to 5' deep, into which waste material drops. These can go 4 to 6 months without cleaning and provide the flexibility so essential to good management.

Odors are kept down because of immersion, and the material can be handled easily with a pump or, better yet, by gravity if the house is properly located. There are odors from the hydraulic system when cleaning, but cleaning is much less frequent.

In multiple story houses, some poultrymen are using tanks only 12' deep on the top floor, but these can only go 4 to 6 weeks without cleaning and this cuts down sharply on the flexibility of choosing clean-out time.

Deep pits (without water) under slat or wire look very promising. For some reason, this practice just doesn't seem to catch hold, but I think it would be very satisfactory for some poultrymen. The pit should be deep enough (6' to 8') so a tractor with a front end loader can be used for cleaning out. Reports say that the pits fill up to a depth of 2' or 3' quite rapidly, but they do not fill very fast after that.

We have reports from people who think these pits may not have to be

(Continued on Page 27)



In Indonesia, India and Italy and a score of other countries today, people are banding together in co-operatives to help themselves to better living. A co-op belongs to the people who use it; it's an ideal illustration of the economic value of a truly democratic institution. Where cooperatives are strong, communism is weakened.

Just one generation ago in this country, we had the same dramatic proof of individual and group economic advances as farmers united behind the one man—one vote principle to establish and crusade for service and marketing cooperatives.

From overseas, striking examples. In our own dairy industry, an economic squeeze highlighting the need for all of us to unite within our cooperatives. Lest we forget! Lest we forget and our needs and aspirations be forgotten.

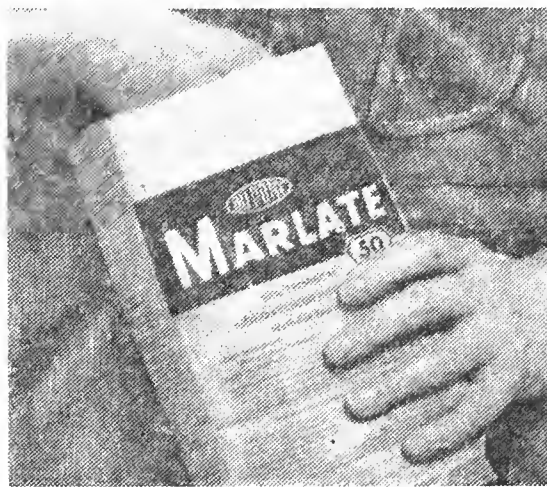


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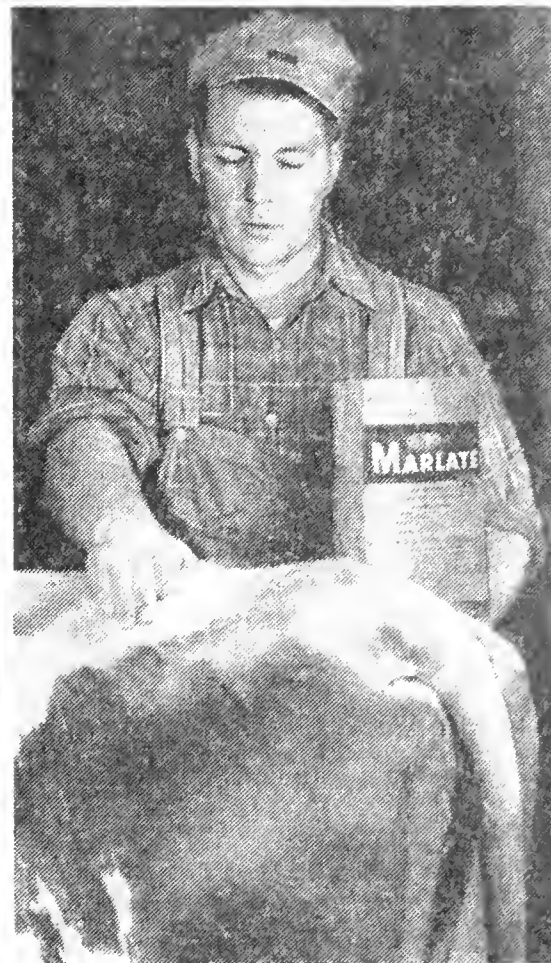
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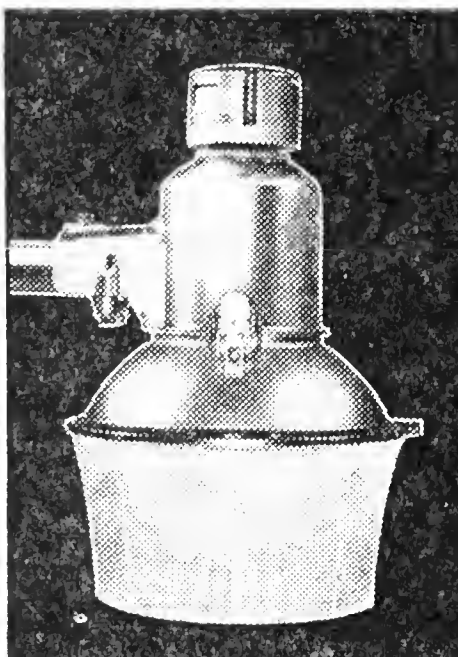
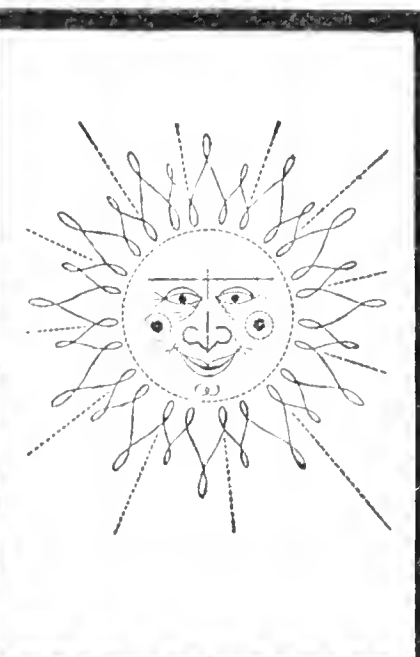
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Pasture To Playground

(Continued from Page 1)


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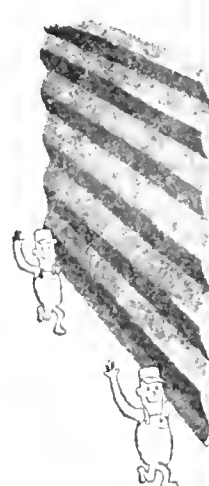
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the camping area. Each site is designed for either a tent or a trailer; trailers are becoming more numerous every year. Charges are collected in advance—\$2 a night for a campsite, including electricity and water. During the summer, sites rent for \$10 a week or \$100 for the season.

Future plans call for 200 campsites, a special area for groups only (families, camping associations, etc.), some trails, and more emphasis on accommodations for groups of hunters in the fall.

Duck hunters already find excellent gunning at Maple View, but the fishermen are the ones who really patronize the ponds. George tells of 27 fishermen who one night pulled out 725 bullheads for fish dinner next day. Fishermen pay \$1.00 per day for the privilege of testing their skill, the same as paid by people who come to use the picnic and swimming facilities.

As many as 60 carloads of people come in on a Sunday during the summer—for picnicking, fishing, swimming, bird-watching, hiking, or just loafing. Thirty cars had come in during one weekend as early as the middle of May this year. Twenty family reunions were held on the premises in 1962.

Ponds Stocked

Pickereel, bass, and bullheads are stocked in pond No. 1 (16 acres), brook trout in the small No. 2 pond, and brook and rainbow trout in the big 26 acre No. 3 pond. Golden shiners and chub were also put in as food for the game fish.

George reports seeing some good fish coming out of these ponds—among them a four pound pickerel, a four pound rainbow, and a three pound bullhead! There are nine boats available at no extra charge for use by campers. "Seventy-five percent of our customers prefer to fish for bullheads," George says. He doesn't get to go fishing very often himself any more—he went only twice last year!

A 36' x 66' recreation hall was built in 1962 for use by customers. It has ping pong tables, a big fireplace, a jukebox for dancing, and a camp store. A new building housing toilets, showers, and a coin-operated washer and dryer is available

for this summer. By the way, 20 amp circuit breakers on the electric lines going to the campsites prevent campers from using electricity for heating or cooking.

Health Regulations

The Cortland County Health Department was consulted prior to building so that all arrangements would meet public health requirements. George reports good cooperation by this agency and says there have been no problems in complying with the rules. No lifeguard is required at the beach if proper signs are erected, but children are not allowed to swim without being accompanied by an adult, and at least three people must swim at one time for the sake of safety.

The Strambas, of course, carry liability insurance designed to cover them in all situations. Workmen's compensation insurance is required for employees, and rates are high for this type of work compared to some other occupations. The largest operating expense items for the enterprise are hired labor and electricity.

The Strambas keep cash expenses down by doing much of their own work. A lot of excavation and filling are required to develop the camping area; equipment owned includes two bulldozers, a ¾ yard power shovel, a front-end tractor loader, and two dump trucks.

In the winter, they work on such projects as casting concrete fireplaces in the dairy barn. These are 48 inches long, 32 inches wide, have a firebox 10 inches deep, and are reinforced with ½ inch steel silo rod. Since they weigh 500 pounds each, no camper is tempted to take one home for his backyard. "Campers prefer these to metal fireplaces on top of a pipe," George reports. "Most folks want a real fire when they camp out."

George looks back down the years to the time he used to fish in a pond a few miles away owned by Dr. Papish, a Cornell University chemistry professor. He told George: "Build some ponds and some day people will pay well to use them—it's the coming thing." The Strambas believe the present has proved the professor a pretty good prophet, and the future will do likewise—only more so.



George Stramba (right) and Cortland County Agricultural Agent Ira Blixt stand beside a pond which is part of a recreational development that is literally converting "pasture to playground."

Fall Foliage Tour

October 6-20

MAYBE YOU'VE decided that you can't be away from home long enough to go on our Mediterranean-Holy Land Cruise-tour, and yet you do want to take a trip this fall. We think we have just the thing for you — our Fall Foliage Tour to New England and Canada! The dates are October 6 to 20, and we will visit these historic places just at the time when the foliage is most colorful. Our party will travel in deluxe sight-seeing buses, with clear, untinted glass to permit photography through the windows.

Like all American Agriculturist tours, this will be an escorted trip, and the all-expense ticket includes everything — transportation, scheduled sightseeing, first class hotel accommodations, baggage transfer, all meals and tips. The price of this glamorous deluxe vacation is unbelievably low: \$447.00 from Albany, N.Y., back to Albany.

Our party will gather on October 6 and drive to Glen Falls for the night. The next day we travel across southern Vermont to spend two nights in the heart of the White Mountains. While there we'll tour "The Notches" — Franconia Notch with its famous profile, The Old Man of the Mountains, Pinkham Notch, Tuckerman Ravine, and Crawford Notch. We will also see Mt. Adams, majestic Mt. Washington, and the Cranmore Mountain Recreation Area.

Our next goal will be the 300-year-old city of Quebec, the only walled

city in North America. While in Quebec, we will make a side trip to the shrine of Sainte-Ann-de-Beaupre and also to spectacular Montmorency Falls. On leaving Quebec, we will follow the mighty St. Lawrence River northeast toward the Gaspé Peninsula. Then on to New Brunswick through a fairyland of autumn foliage, sparkling lakes and streams. We'll see the Bay of Fundy with its "world's largest" tides and visit Magnetic Hill.

All roads in the Maritimes eventually lead to Halifax, and our road is no exception. We will spend two days traveling in this historic section of Nova Scotia on our way to Yarmouth at its southern tip. From Yarmouth we will cross by ferry to Bar Harbor, Maine, and visit Acadia National Park.

The autumn beauty of our ride down through Maine to Massachusetts will be something we will always remember. And then will come another fascinating part of our trip as we visit famous historical places — Salem with its Gallows Hill and Witch House, fashionable Marblehead, Swampscott, and on to Boston over the famed Mystic Bridge.

At Lexington and Concord, we will traverse quaintly crooked streets that once were cow paths, and see Faneuil Hall, Paul Revere's House, Old North Church, the homes of Longfellow and Lowell, Harvard College, and other famous sights.

We will also visit Plymouth and

see Plymouth Rock, Pilgrim Hall, Old Town House, First Church and many other replicas of the Puritan settlement; also, Cape Cod and the Cape Cod Canal.

This is your chance to see some of the most famous places in north-eastern America, in the easiest, most comfortable way possible. You will be traveling with the best of company, an American Agriculturist party, and will be well looked after by our tour agents, the Travel Service Bureau of Needham, Mass. You will have no travel worries and nothing to do but have a wonderful time.

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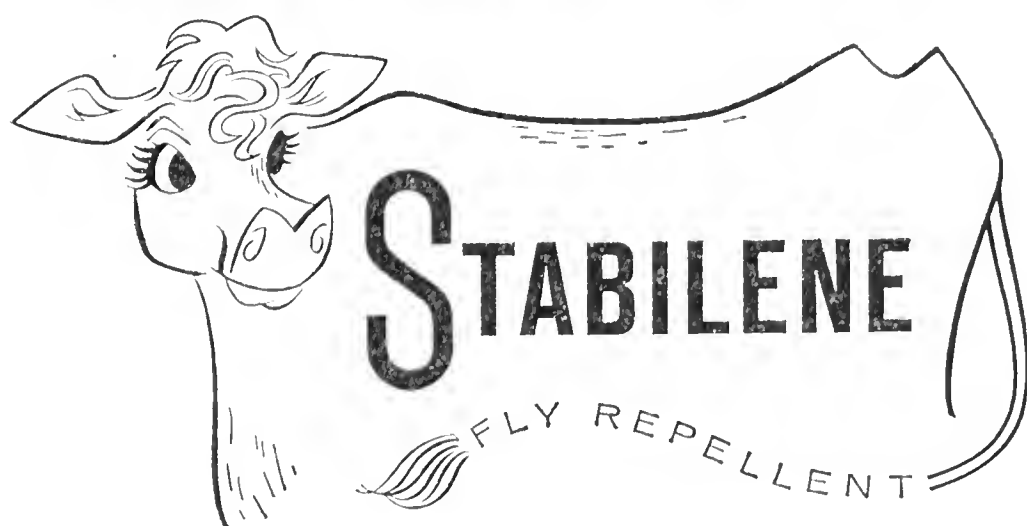
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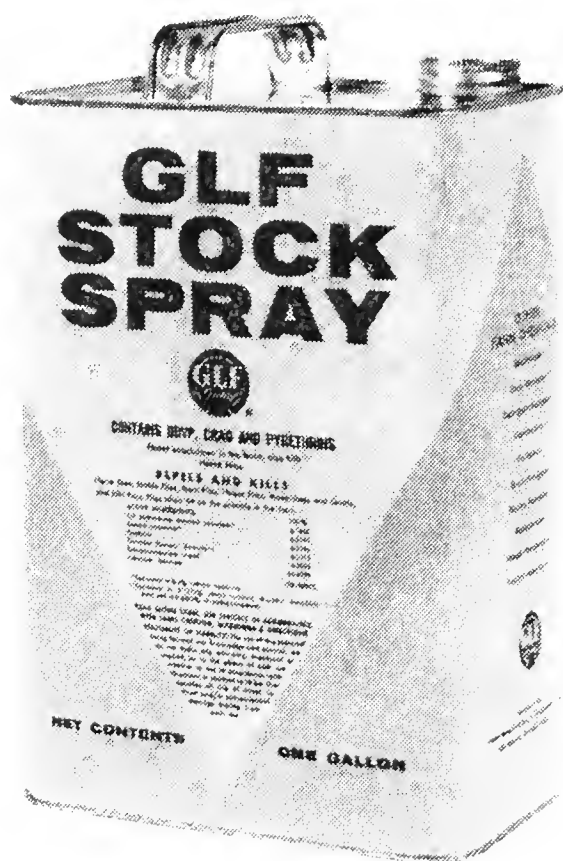
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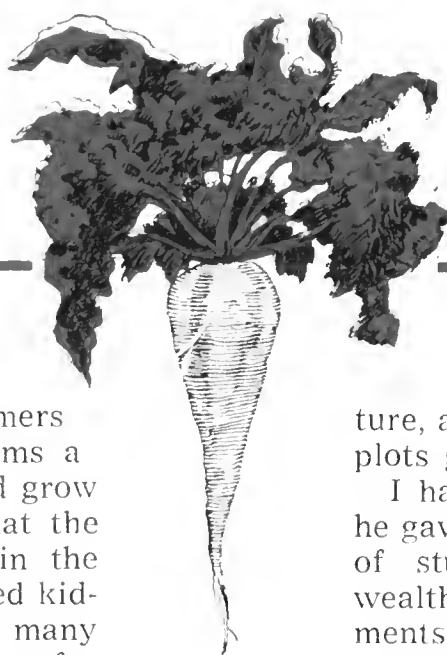


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SUGAR BEETS in the Northeast



Sweet Music or Sour Note?

By HUGH COSLINE

CENTRAL NEW YORK farmers would welcome with open arms a new cash crop that they could grow at a profit. One reason is that the situation in Cuba has resulted in the loss of an important market for red kidney beans. But even before that, many growers had lost their enthusiasm for beans. For example, in Cayuga County the red kidney bean acreage dropped from 29,000 in 1949 to 13,000 in 1959, and there were similar decreases in other counties.

Sugar beets have been suggested as a possibility to be the new crop, and while there are skeptics who point to several questions that need answering, a lot of work has been done in studying the crop for New York, and much more is being done. As a result, many interested people, both farmers and business men, feel that growing sugar beets has a rosy future. Growing this crop might even dissuade some dairymen from increasing the size of their herds to increase their income.

Ten years ago about 29 percent of U. S. sugar consumption was produced by U. S. farmers, while in 1963 the percentage will be nearer to 40 percent—9 percent from sugar cane and 31 percent from beets. Around 25,000 U. S. farmers are growing about a million acres of beets, and 14 companies operating 60 sugar refineries have 5 refineries under construction and 6 more in the planning stage.

U. S. sugar production in '63 is estimated as 3 million tons, up a half million from '62, and a million tons more than ten years ago. Sugar prices have been skyrocketing. A recent announcement of a wholesale price increase to \$15.05 a hundred was the 13th increase since January 1, when the price was \$9.60.

How It Started

The idea of sugar beets as a central New York crop started this way. Henry Stack of Genoa, a lawyer with a farm background, realizing the need for a new farm enterprise, spent some time investigating numerous possibilities. He concluded that sugar beets offered the best prospect, and interested some Auburn business men, among them Paul Lattimore, now chairman of a local committee for the federal Rural Area Development Administration.

Facts Developed

A New York City firm was hired to make a detailed study of sugar beets, and with this information the College of Agriculture at Cornell was approached and asked to conduct some tests to determine the acreage of soils adapted to the crop, and to determine the best cultural practices. In 1962, College personnel supervised beets grown by 23 farmers on plots of one-quarter to one-half acre. In 1963, there are trials on 70 farms in eight counties, as well as several experiments on production practices.

The production and importation of sugar has been tightly controlled by government for nearly 30 years. Before a new area, such as central New York, can grow sugar beets, the approval of the Sugar Division of the U. S. Department of Agriculture must be secured. To get this approval, facts must be presented to indicate the feasibility of beet-growing in the area.

So, on September 26, 1962, Paul Lattimore went to Washington to present the case for a quota in his area. He was accompanied by several men who were interested in the ven-

ture, and had some results from the trial plots grown in 1962.

I have read a copy of the testimony he gave. It reflects a tremendous amount of study and work, and includes a wealth of information to back up statements made.

Regardless of whether or not beets become an important cash crop in the area, farmers owe a debt of gratitude to Henry Stack, the original proposer, to Paul Lattimore and his committee, to fellow farmers who spent time and money, and to the College of Agriculture for conducting extensive growing trials.

The Rural Area Development Administration wants to help areas with heavy unemployment to find more jobs. Cayuga County was one of the first areas so designated, and one of the first areas to set up a local committee as required by law. Because the entire county was named, the Cayuga County board of supervisors was involved, and asked a committee—headed by Paul Lattimore—to act as the local R.A.D. committee.

Several times I have been told that beet growing, if it is to continue as an important crop, must be completely mechanized. But as grown at present, beets require some hand or "stoop" labor in thinning and weeding. Some progress has been made in mechanical thinning, but the prospects are that it will not be entirely practical for at least a couple of years. Chemicals have been developed to control some—but not all—weeds, and work is continuing to find better chemicals.

Beets are planted early, in April and early May, and thinning comes a month or so later, probably in June. Will this furnish migrant workers with more or steadier labor, or will the beets compete with other crops for labor? If beets become an important crop, will more migrant labor be needed, perhaps to be unemployed at other seasons? And will the need for migrant labor disappear when mechanization is complete?

Incidentally, this is not the first time that New York farmers have shown an interest in growing sugar beets. In the early 1900's three small plants were built in New York State, later to be abandoned. However, it is now pointed out that they were built in areas not well suited to growing beets; also that many advances have since been made in economical beet production.

Growers Organize

Already a Finger Lakes Sugar Beet Growers' Cooperative Association has been formed with about 325 members. Its president is Frank Turek of King Ferry. Roy

Tuttle, of the same address, is secretary-treasurer, Howard Cuddeback, vice president.

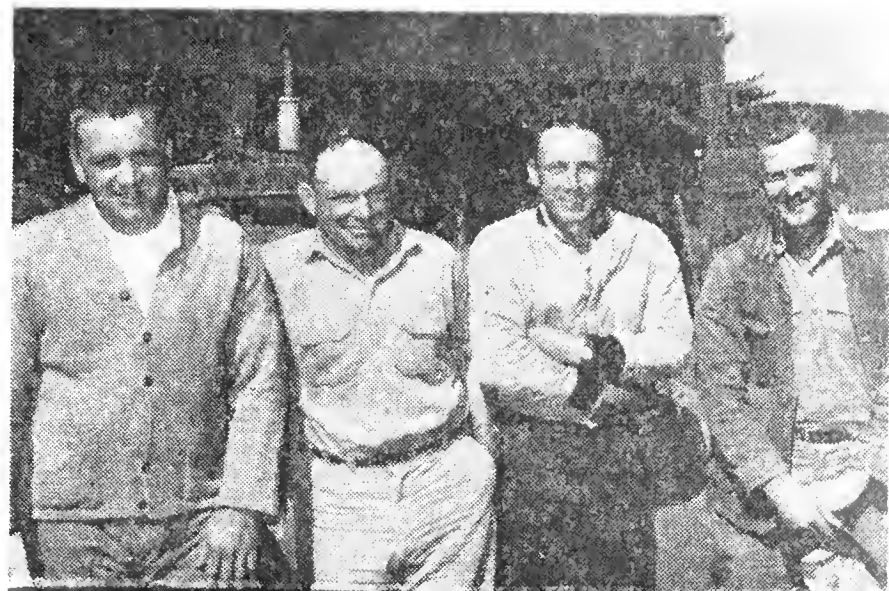
But let's get back to the growing trials. The Agronomy Department of the College furnishes the seed, the fertilizer, and the chemical weedkiller. The Department also plants, watches, and records facts about the growth, analyzes leaves to check on fertilizer needs, harvests the beets, records the yield, and gives available facts on growing sugar beets to the farmers involved.

The farmers furnish and prepare the land, keep detailed records—including rainfall—cultivate and thin the beets, and are responsible for selling them after harvest. However, the growers' cooperative has arranged for a crew of migrant workers to be housed at the King Ferry camp, and will pay them for the work of thinning and weeding the beets for members of the Association. The money for this has been borrowed from an Auburn bank, with the Auburn Industrial Foundation as co-signer.

If a market is found for the beets next fall, the first proceeds will go to repay the note, but otherwise the growers will not be obligated. To help in managing this transient labor the Association has hired Floyd Chapin of Auburn, a man who for years managed the Great Gully Farm at Union Springs, New York, to act as fieldman.

Prospective growers naturally are interested in possible returns. Price won't vary much in an area, although I am told that the price of \$14.50 per ton

(Continued on Opposite Page)



Three Seneca County, New York, growers recently visited Frank Turek of King Ferry (right) to learn more about the sugar beet program. Left to right: James Garlock, McDougall; LeRoy Poorman, Waterloo; and John Brooks, Romulus.



Robert Burt (left) and Leon Hatch (center) plant sugar beets in a test plot on the farm of Bertrand Buck, Jr. (right), Groton, N. Y.

(Continued from Opposite Page)

that has been quoted may be too high, and that \$12.50 is a more realistic figure.

When you figure it all out, the yield per acre is the important figure. One set of College research figures from an existing sugar beet area gives \$126 as the cost of growing an acre of beets, 13 tons as the yield, and \$14.00 as the price per ton—and the net profit per acre as \$55.80. Assuming that the figures are on the optimistic side, what would the net be with a yield of 10 tons and a price of \$12.50? It figures out to a net loss of \$1.20 an acre.

Yields on good land should be better than that; sixteen tons per acre has been mentioned as an attainable yield on good farms. Others say that it is too high to consider as an average. A Minnesota bulletin gives actual production (1962) costs as varying from \$79 to \$105 an acre. This was a cost study, and yields were not given.

Of course, the costs include such things as labor, interest, equipment, etc., so perhaps growers will welcome the crop if on the average they can recover all costs, including labor and interest on the investment.

College Conclusions

Already some conclusions have been reached by the College of Agriculture as a result of test plots grown in 1962. In a report made last December, Dean Charles Palm said in part:

"Based on its research work, the conclusions of the College of Agriculture are summarized as follows:

"1. Within a radius of 25 to 40 miles of Auburn, New York (25 miles north and south; up to 40 miles east and west) at least 300,000 acres are suitable for the production of sugar beets. This would provide 60,000 acres per year if included in a five-year rotation. The acreage of suitable soils is adequate.

"2. Yields from the demonstration plots on mineral soils averaged 11.9 tons per acre, with an average sugar content of 15.3 percent. Yields were higher on the research plots and on two muck soil field trials.

"3. Based on a new analysis of costs, the break-even point for sugar beets in New York State is estimated to be approximately 9 to 10 tons per acre.

"4. Although grower inexperience with sugar beets may be a handicap in the early years, the farmers in Cayuga County and adjacent areas are experienced cash crop farmers and on previous occasions have learned to produce new cash crops." (Editor's Note: Additional information will, of course, be available after the '63 trials are complete).

Unanswered Questions

Now let's consider some of the unanswered questions concerning sugar beets in central New York:

1. Sugar beets need a long growing season. The longer they are in the ground, the higher the sugar content. One reason why cash crop growers look at dry beans with a jaundiced eye is the difficulty in harvesting if weather gets bad. Sugar beets will have the same trouble. However, the beet growing season here is as long or longer than in some other areas.

2. The recent wheat vote indicated that farmers, both in New York and the nation, are somewhat fed up with government controls. Yet su-

gar has for many years been about as tightly controlled as a crop could be. Due to the current situation, acreage allotments have been removed, and the USDA has said they will not be re-imposed at least until the 1966 crop.

By controls, U. S. sugar prices have been maintained above world prices. If these controls should be abandoned and prices slipped to the world level, sugar beets would surely disappear as a U. S. crop. Government control always injects an element of legislative uncertainty into the future of any controlled crop.

3. Present high sugar prices might increase a prospective grower's enthusiasm. Obviously, the development of a sugar industry in central New York should be based on long-time prospects.

4. At present there is no sugar refinery in central New York, and no market for sugar beets. The USDA wants conclusive proof of the soundness of the venture before giving the State a sugar quota. For one thing, they want assurance that a sufficient acreage of beets will be grown to make a refinery efficient.

I am told that several large refineries are interested in putting their own capital into a refinery without asking for contracts from growers. I have been told, also, that one of these companies may have a refinery ready to run by the spring of 1965.

5. Still to be determined is how a sugar beet enterprise will fit into a farmer's plans. For example, will a dairyman veer away from specialization and develop two major enterprises? If he does, it will mean a considerable amount of new equipment. A two-row beet field harvester—which is essential—costs around \$3000 to \$4000.

Along with mechanization is the problem of capital requirements. Many farmers say their debt load is big enough already without "tooling up" for a new crop. Yet if all signs point to a profitable enterprise, I would predict that the capital will be available.

6. There may still be questions about the area available for planting. It has been established that sufficient beet-growing land is available within 40 miles of Auburn—300,000 acres a year in a five year rotation. But not every farmer owning such land may decide to grow beets. The distance that beets can be hauled profitably is important. In some other states, there has been a tendency to reach out in order to get the volume of beets necessary for efficient operation to a point where transportation costs ate up the profits.

The growers' association has been dickering with midwestern plants, hoping to sell the beets grown this year. The New York Central Railroad has agreed to a substantial cut in freight rates, but this, of course, is a temporary expedient.

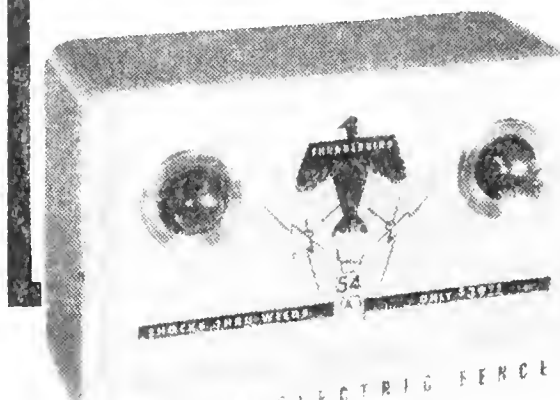
7. While it seems probable that present trials will show that beets can be grown well here, I feel that growers should have all possible knowledge about the economics of the enterprise.

What will it cost to grow the crop? What are probable average yields? How frequent will crop failure be, or even serious drops in yield due to weather or other causes? How will beets fit into farmers' total businesses?

Given all the facts, I have confidence that farmers will get the right answer.

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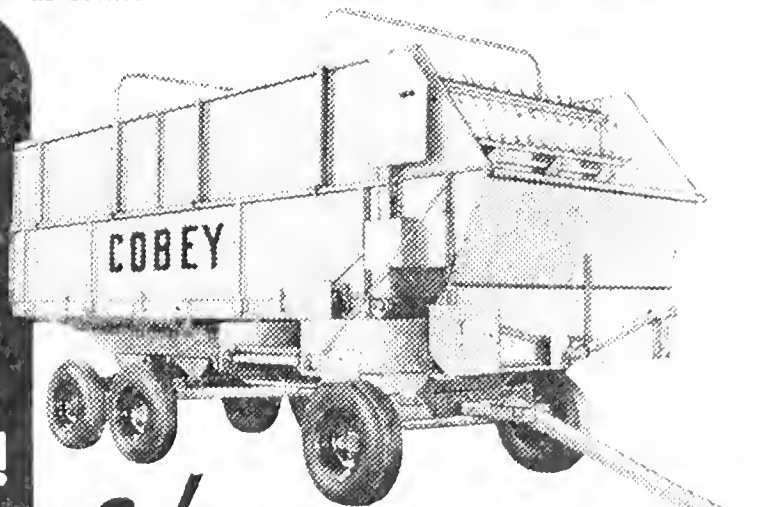
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300 ACRE DAIRY, beef farm, 127 acre field excellent cultivation. Lumber, 9 room house. Unlimited water. \$12,600. Kenneth Hutchins, Washington, Maine. Telephone 14-14.

STOCKED—equipped dairy, in A-1 location, macadam, 2 miles town, 169 acres, 68 acres tillable, 91 acres spring and brook-fed pasture, 10 acres wooded. 75x40 dairy, 50 ties, milk room, water-piped, silo. Excellent 10-room Colonial home; 5 bedrooms, 1 1/2 baths, hardwood floors, basement, oil heat, gravity water system; 2 kitchens (can be 2 5-room apartments); double garage, 20 milk cows, milk machinery, tractor, more included! Retiring owner sets value price: \$30,000., only \$13,500 down. Strout Realty, RD 2, Elk Creek Rd., Delhi, N. Y. Ph: 4-F-3. Free local lists.

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268 ACRE FARM, 165 tillable, excellent water and fencing, 41 stanchion barn, 3 silos, milkhouse, beautiful modern 9 room home, central heat, large modern kitchen, 6 bedrooms, Finger Lakes Region, between Newfield and Ithaca, N. Y., for further details, contact W. W. Werts, Johnson City, N. Y.

125 ACRES, mostly tillable land, some woods, creek through property, good 6 room house with bath and furnace, Artesian well water, excellent location, on blacktop road, not too far from Waverly and Route 17, commuting distance to Ithaca and Elmira, N. Y., low taxes. \$7800. W. W. Werts Real Estate, Johnson City, New York.

(Continued on Opposite Page)



MY "EAGER WEAVERS"

RECENTLY, a 10-year-old girl in our neighborhood sat in her living room and gazed with satisfaction at an attractive apron border she had just completed. She had used a form of embroidery called "huck weaving," and she knew her mother would love the apron, not just because she had made it, but also because her work had been skillful, and the colors chosen well.

Susan and the other members of a little group I call my "Eager Weavers" have found in huck weaving a pastime which provides answers to such perennial questions as "What can I make that's pretty?" or "What can we do that's new?"

The joy of creating something beautiful and useful with one's own hands, and the honest pleasure of giving a gift into which we have put part of ourselves are among life's most rewarding experiences. Yet in searching for ways to bring about these experiences, both our children and we who guide them often falter.

It is so easy for children to choose projects which are beyond their

By Alice P. Stein

"Eager Weavers," Jenifer Johnson, Susan Walsh, and Cynthia Charron, discuss a new color combination.

skill, and which end either in failure, or in the half-satisfaction of knowing that the job is not really very well done. Sometimes, too, the completed article, even if it is well made, is not useful, and sensing this dulls the child's feeling of accomplishment. My Eager Weavers have discovered that it is easy to avoid both of these problems with huck weaving. That is why, for two years now, they have continued to enjoy this craft.

Our little group got its start on a sultry, late-summer day when time was beginning to hang heavy for the local school crowd. These girls came to my door in search of ideas for something to do. Needlecrafts of various sorts always have been a hobby at our house, so we got out some things I had made, and my large collection of patterns and instructions for making all sorts of things.

The girls were attracted right away to the colorful designs of the towels, placemats and skirts I had made in huck weaving, and wanted to try it. Since then, they have found that their interest grows with each new design mastered, and each new gift presented to an appreciative relative or friend. We even had one boy in the group for a while, and he made some beautiful things — until the football season began, and claimed priority on his time!

As a satisfying craft for youngsters (as well as adults), huck weaving "has what it takes" in many ways. First, materials and instructions for it are available readily in most communities, and at small cost. Too, the basic skills are so easy, for even very inexperienced fingers to master, that the first time she tries it, a little girl can make something really nice if she honestly tries.

There is a wide enough range of design possibilities available so that each young worker can continue for a long time to find ones that she likes. Then, after she has had some practice, she can experiment and create her own designs. She will also get experience in counting accurately, and in bringing colors together in pleasing harmonies.

Huck weaving is done on huck toweling, a sturdy



cotton material which is distinguished by pairs of parallel float threads, like small equal signs, running on the lengthwise grain of the right side. It comes in 17-inch widths, which are used for towels, placemats, and some aprons, and 36-inch widths which are used for skirts and other garments. For a towel, two-thirds of a yard of 17-inch fabric is required. For each placemat, we used 13 or 14 inches of 17-inch fabric. Harmonizing napkins were made from 15-inch squares of cotton crash, stitched one-half inch from the edge and fringed. This was chosen to match one of the colors of thread used in the mats. Of course, yardage for aprons and other items varies with the pattern. Buy accurately, but if there are scraps left, save them for experimenting with new designs.

The thread used may be either ordinary, six-ply embroidery floss or two-ply pearl cotton. A tapestry needle is best, and should be large enough to thread without difficulty, but small enough to make the stitches easily. Very large needles look easy to hold, but are hard to put through the fabric.

Another Advantage

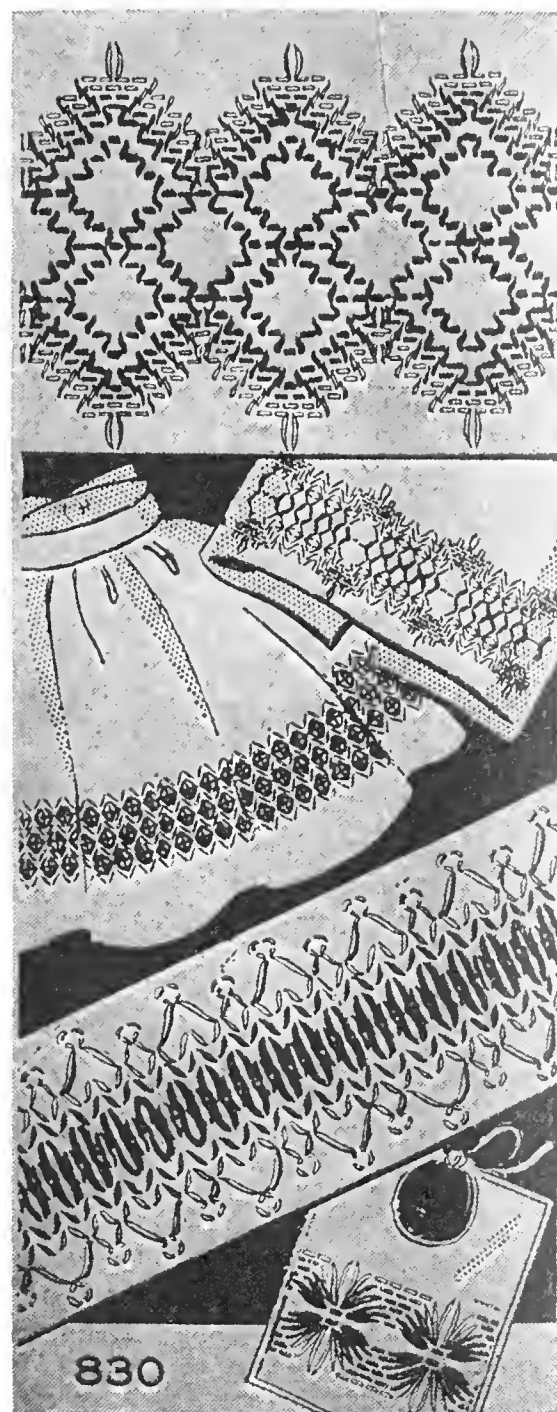
Another advantage to huck weaving is that all the work is done on the surface of the material, so that the needle is visible at all times. Most patterns are worked on the right side, but some are done on the reverse side, where single, prominent float threads occur at intervals on the crosswise grain.

Traditionally, huck weaving is done in rows or borders, beginning at the center and working toward either end in turn, so that the design will come out even at both ends of the row. Recently, however, some patterns have appeared which use huck weaving in individual figures, with no border effect.

A very simple border design is shown in picture at upper left. It is worked on the right side of the fabric, and can use as few as four threads. Additional lines of the pattern may be worked for as wide a border as desired, and the whole may be framed with one or more straight lines of thread on either side. This and many other huck patterns lend themselves to a shading effect, with two or more shades of the same color used side by side.

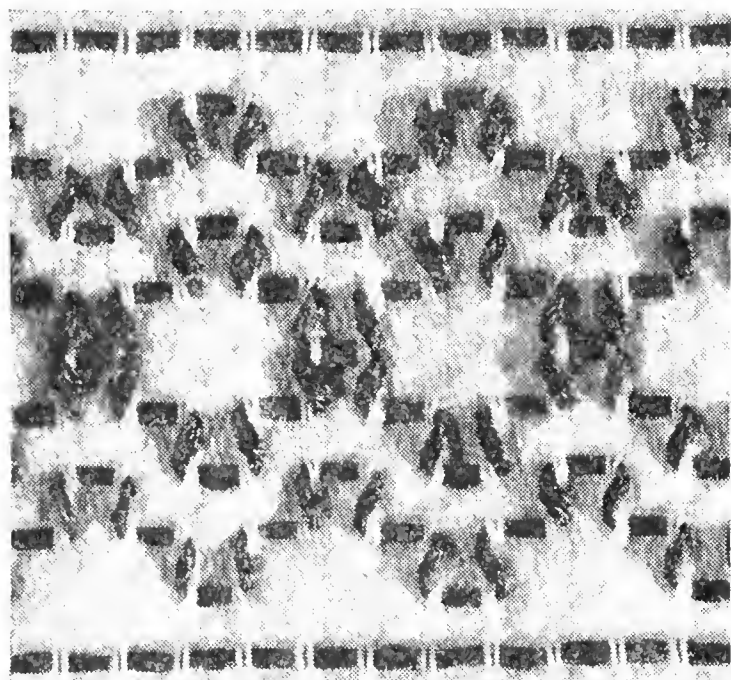
Patterns and directions are available at most needlework counters, and Pattern No. 830, shown on this page, offers many possibilities. Charts and directions are given for five designs, and may be used separately if a very simple piece of

work is desired. This pattern costs 25 cents, and you may order it by writing: American Agriculturist 257, Needlework Service, P. O. Box 162, Old Chelsea Station, New York 11, N. Y.



Among others which are widely distributed are those published by the Coats and Clark Sales Corp., and a series written and published by Mildred V. Krieg. Book Number 2 in the latter series contains many narrow borders especially suitable for small guest towels and placemats, as well as wider ones for large towels, aprons, and skirts.

Give some young friend a home-assembled kit containing a length of toweling, thread, needles, and a set of instructions for her birthday or on some other special occasion. Use a pretty box, one that she will want to keep her work in as she progresses, and include a good variety of colors of thread so that many combinations can be tried. That's one of the important things she will learn from huck weaving.



Swatch of fabric showing characteristic weave, with pairs of float threads, and simple huck weaving pattern.



Towel, placemat (with napkin), and apron made by young girls belonging to the group.

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PATTERN 4576 is FIFTY CENTS. All other patterns are THIRTY-FIVE CENTS each. Send orders (with coin) to: AMERICAN AGRICULTURIST, Pattern Dept., Box 42, Old Chelsea Station, New York 11, N. Y. Please write name, address, pattern sizes and numbers clearly.

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When raspberries are ripe on the vine, that's your cue for making wonderful jams and jellies. And be sure to make a few extra glasses to give friends at Christmas or on some other special occasion.

Photo: Certo and Sure-Jell

July's Fruit Basket

By Alberta D. Shackelton

BERRIES, currants, and cherries share the spotlight for July. Make the most of this wonderful berry harvest by using these fruits fresh and in recipes as often as possible. Then stretch the season by freezing, canning, and preserving a supply for winter use.

If the berry season is a busy one, freeze the fruit and juice to be used later for jams and jellies. One of my friends finds empty quart milk cartons convenient for freezing juices. Each summer her gift to me of frozen currant juice or a combination of currant and crabapple or raspberry juice is always welcome, as currant jelly remains my favorite through the years.

To get best quality, look for bright, clean, firm, dry berries (wet or soft berries lack flavor and keeping quality), and those free of spots and molds. All berries, even blueberries the "best keepers," are perishable and need careful handling. Sort immediately after purchase, and spread out on shallow pans. Refrigerate uncovered until ready to use. Don't pick berries when wet, and keep them dry until time of use, as moisture causes spoilage. In picking, encircle the berry with three fingers instead of two. This distributes pressure evenly on the berry and prevents crushing it.

Here are a few of my family's favorite recipes.

OLD FASHIONED RASPBERRY SHORTCAKE

- 2 cups all purpose flour
- 3 tablespoons sugar
- 3 teaspoons baking powder
- $\frac{1}{2}$ teaspoon salt
- 6 to 8 tablespoons shortening
- 1 egg
- $\frac{2}{3}$ cup milk or light cream, approx.
- 2 quarts raspberries
- $\frac{1}{2}$ to $\frac{3}{4}$ cup sugar
- 1 cup heavy cream

Sift together the flour, sugar, baking powder, and salt. Cut in the shortening. Combine egg and milk or cream and stir into the mixture with a fork until all flour is moistened. Turn dough onto a lightly floured board and knead gently a couple of times. Roll or pat dough to fit a round or square greased, 8 inch pan, and fit into pan.

Bake in a very hot oven (450°) about 15 minutes, or until golden

brown and cake tests done with a tester. Cool slightly. Remove from pan, split in two crosswise, and spread cut sides with softened butter.

Reserve some whole berries for garnish. Crush about half the remaining berries and combine with the whole berries and sugar. Place bottom half of cake on serving plate with rim, cover with about half the berry mixture, place other half of cake on top, and cover with rest of berries. Top with whipped cream and garnish with whole berries. Serves about 6. Pass extra crushed berries if desired.

RED RASPBERRY JAM

- 2 quarts fully ripe raspberries
- 1 box powdered pectin
- 7 cups or 3 pounds sugar

Crush berries thoroughly. Sieve part of the pulp to remove some of the seeds, if desired. You will need 5 solidly-packed cups or 2 $\frac{1}{2}$ pounds of the prepared fruit. If there is not quite enough fruit, add water to fill the last cup needed.

Combine fruit and pectin in a 6 to 8-quart saucepan. Stir the mixture over high heat until it comes to a hard boil. At once stir in the sugar. Bring to a full rolling boil, then boil hard 1 minute, stirring constantly.

Remove from heat, skim off foam with a metal spoon. Then stir and skim by turns 5 minutes to cool slightly and prevent floating fruit. Ladle quickly into prepared jelly glasses, leaving $\frac{1}{2}$ inch head space at top. Cover at once with $\frac{1}{8}$ inch hot melted paraffin. Makes about 11 medium glasses.

Note: For Sour Currant and Sour Cherry Jam, use 1 $\frac{1}{2}$ quarts crushed, fully ripe currants (sieving half of the pulp to remove seeds) and 2 $\frac{1}{2}$ pounds cherries, pitted and ground or chopped fine, 1 box powdered pectin, and 6 cups or 2 pounds and 10 ounces sugar.

Follow directions for Raspberry Jam.

BLUEBERRY PUDDING

- 2 tablespoons butter
- $\frac{1}{2}$ cup sugar
- 1 egg
- 1 cup all purpose flour
- 1 teaspoon baking powder
- $\frac{1}{4}$ teaspoon salt
- 1 quart fresh blueberries
- $\frac{1}{2}$ cup sugar, approximate

(Continued on Page 25)

LITTLE MISS SUMMER

By HAZEL B. CORLISS

EVERY YEAR, on our tree-surrounded Basin Farm in southern Vermont, we rejoice in the glorious month of June. It is indeed a time when "Heaven tries earth, if it be in tune..."

At first, we do not notice the change; we are enchanted by all the fresh beauty around us and are busy with the spring cleaning and planting. Then, late in June, there comes a day when Father Sun puts wet kisses on our brow as we weed the garden, and we know that Little Miss Summer has come for her annual visit to "The Basin." It is with great joy that we welcome Little Miss Summer. During the long winter we were like soldiers in a frozen, far-away land, feasting our eyes upon the colorful seed catalogs and dreaming about her—she was our "Pin-up Girl."

Fleeting as Youth

Stealing softly upon us, Little Miss Summer is as surprising and as fleeting as Youth itself. To misty-eyed parents, she is like the graduate getting her diploma, or like the bride making her vows amid a bow-er of roses; she was just a little girl—only yesterday. In a mere breath of time, the tiny bud has become a full-blown flower.

Joyously but feverishly we clasp Little Miss Summer to our hearts, knowing that she will leave us all too soon. We hurriedly seek our stored warm-weather clothing, our straw hats, and our white shoes. Little Miss Summer watches us mow the lawn and happily place the yard chairs under the big maple tree. She listens to our friends plan their vacations, arguing about the respective merits of the beach and the mountains.

Strolling in the pasture, Little Miss Summer pauses to greet Daisy, the Jersey cow, who is contentedly chewing her cud; she praises Daisy for giving so much rich milk, yellow as the dandelions in the meadow. She admires Susie, our beautiful heifer, as she grazes on the green slope, and frolics with Smokey the Black Angus calf, tied near the barn. She agrees with the scolding red rooster that it is time the old hens laid more eggs for making sponge cakes, and listens as Mother Hen clucks to her chicks.

Walking in the woods, she drinks

from the running brook, bordered by a multitude of lush, green ferns. She surprises the deer, as they rest in the cool glade after feasting in the upper meadow. Lingerer beside them, her youthful spirit is soothed in this quiet sanctuary.

As she returns, she sees the squirrels and chipmunks scampering along the stone walls. She races with Scamper the dog and tries to help him catch the woodchuck that is foraging in the field. She salutes the tireless bees, gathering pollen for their hives. She sings with the birds, and watches them carry food to their waiting young ones.

On the Fourth of July, we officially celebrate Miss Summer's coming by having a picnic or a barbecue. She sits with us as we feast upon the first garden peas; she shares our sandwiches, hot dogs, ice cream, and lemonade. In the evening she puts on her own "fireworks" display when she dances with the fireflies and carries their lighted lanterns.

All during July and August, with the help of Father Sun and the warm rains, Little Miss Summer makes our garden and crops grow. She smiles with satisfaction as we enjoy the new vegetables, and warns us to preserve the surplus against the time when she is no longer with us. Likewise, she spurs us on to the haying task, although we swelter in the hot sun. Sometimes she is a "Summer Siren," calling engines and volunteers to extinguish the blaze in a neighbor's burning barn.

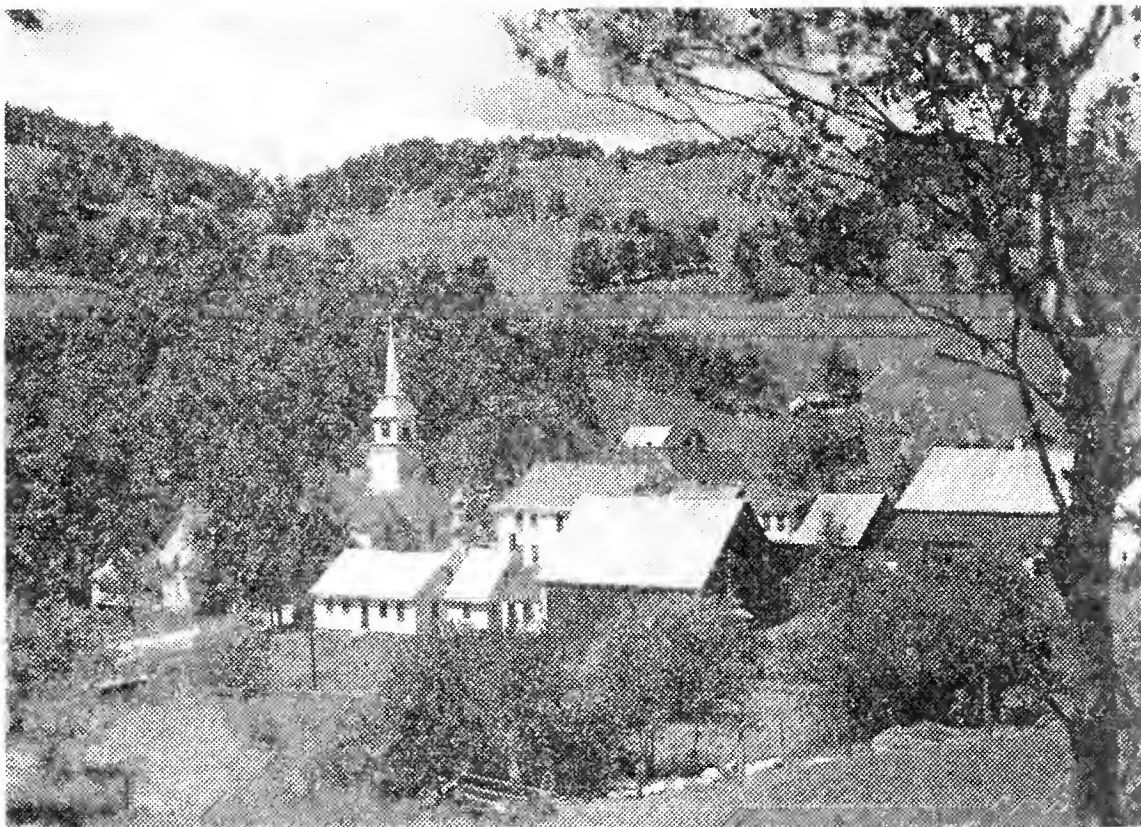
In the Berry Patch

In the evening coolness, she loves to go with us to pick first the strawberries, then the raspberries and blueberries. In the berry patch down by the brook, she hears the birds scold about our intrusion, and as dusk descends, a woodpecker sounds "Taps," while a mother partridge calls her children to bed.

Stepping into our old kitchen, she is delighted by the tantalizing aromas of berry jam, homemade bread, and green apple pie. She watches us churn mounds of golden butter and make cottage cheese.

When the evening chores are done, she sits with us in the yard while, in a blaze of glory, Father Sun bids us goodnight. Later, The

(Continued on Page 25)



The setting for Mrs. Corliss' "Basin Farm" could be very similar to this charming New England countryside scene.

Color In Your Garden

By NENETZIN R. WHITE

JULY AND AUGUST need not be barren months in your garden, for there are many excellent summer flowering shrubs and perennials that will brighten your grounds. Some of you plant colorful borders of annuals, so you do not have this problem. I have some annuals on our patio and plant a few rows in the vegetable garden to use as cut flowers, but somehow I like to have our borders self sufficient and lasting year after year.

At any rate, why not consider adding a few summer blossoming shrubs and perennials to your grounds? Most nurserymen today have many of these plants balled and burlapped, or growing in cans, so you can put them in your borders when and where you please.



Perennials

In the perennial group, there are countless numbers of summer flowering plants. I will list for you some of my favorites that are easily grown.

Althaea or Hollyhock. We all know this one, but try the unusual double

varieties. They are excellent in back-grounds or for use as screen plantings.

Chrysanthemum Maximum or Shasta Daisy blooms from June to September with magnificent daisy-shaped flowers. I prefer the semi-doubles.

Coreopsis or old fashioned Tickseed gives you yellow blossoms for beauty and for cutting all summer. It grows 2 to 3 feet tall.

Delphinium. Giant Pacific Hybrids are probably my favorite flower. These plants (5 to 6 feet in height) have a color range from pure white to black-purple, with deep blues, light blues, and lavenders in between. After the first blossoming period, cut back to the ground (this is the time to give each plant a handful of bone meal too), and you will have another beautiful set of blossoms. Spend the extra few cents you will need to get Giant Pacific Hybrids—they are so superior!

Dicentra Eximia (Plumy Bleeding Heart) is a dwarf form of *Dicentra spectabilis* or old fashioned Bleeding Heart. It has fern-like foliage and pretty pink blossoms throughout the summer.

Dianthus (Pinks). Several varieties of this delightfully fragrant dwarf carnation blossom in the summer.

Dictamnus or Gas Plant will last in your border for a lifetime and makes a handsome glossy-leaved plant, 2 to 3 feet tall. Both flowers and foliage are lemony scented, and the gas from the plant can be ignited on a still summer day. Try it—it makes a flash of fire.

Gaillardia or Mexican Blanket Flower will blossom all summer with an orangey-yellow color.

Gloriosa Daisy is a perennial that will blossom the first year from seed. It grows about 3 feet tall and has yellow to orange or bicolor-ed blooms; will tolerate poor soil and take over unsightly areas.

Hemerocallis or Lemon Lilies now give us delightful colors—apricot, pink, red, and bicolors. By using different varieties, you can have a galaxy of blossoms all season.

Heuchera. Coral Bells are, as the name implies, dainty coral flowers borne over handsome leathery foliage. They last well into the summer, and humming birds delight in the flowers.

Hibiscus. Perennial Mallows (3 to 7 feet) have been hybridized so that they have unbelievably large blossoms, many 8 inches across. You can get bicolors and single colors in whites, pinks, and reds.

Hosta or Funkia. There are many varieties of this long-lived plant with fabulous foliage-flowers; does well in shade, too.

Lilies. Well, I could do a whole article on them, but just don't overlook these stately, magnificent clusters of flowers. Most of them require well drained soil with gravel placed under each bulb.

Monarda or Beebalm blossoms all

summer (2 to 3 feet in height) with minty foliage. The standard color is red, but new hybrids are pink and scarlet also.

Phlox are very hardy and have a complete range of colors, with large heads of flowers which are at their prime during the summer.

Platycodon or Balloon Flower has broad blue or white bell-shaped flowers. It is a rigid-stemmed, clumpy plant about 2 feet tall.

Veronica (Speedwell). Usually lovely blue spikes on plants, 1½ to 3 feet in height. Now also available in pinks and whites.

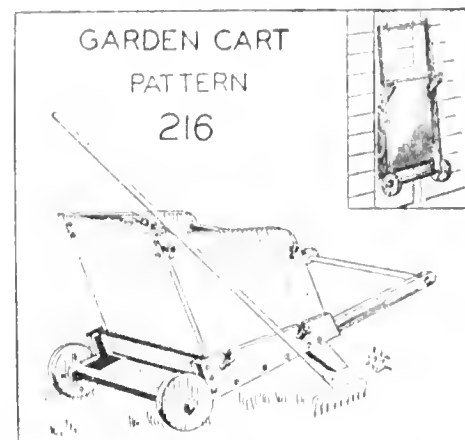
Next month I want to go over a list of flowering shrubs that will fill in the background of your borders and give you really good color through the summer.

NEW SEWING BOOKS

Three new "How-To" sewing books have been published recently by the Singer Sewing Machine Company and are available at chain and department stores, as well as at local Singer Sewing Centers. These books are entitled, *How to Sew for Babies*, *How to Make Aprons*, and *How to Make Cushions, Pillows and Bolsters*.

Fully illustrated, each book covers its subject step-by-step and answers all your questions. Together with the 18 other "How-To" books previously published, they make up a complete dressmaking and home decoration library. Each book costs 25 cents.

HOME WORKSHOP



No storage problem for this cart! Just remove the sides and hang it up. Make it now and use it the year around. It may have wooden wheels, as shown, or use metal wheels. Pattern 216, which gives material list, actual-size cutting guides and illustrated directions, is 35 cents. This pattern is also in the Gardeners' Helpers Packet No. 27, which contains four full-size patterns and sells for \$1.

Send orders to AMERICAN AGRICULTURIST, Pattern Dept., Bedford Hills, N. Y.

FOR A PICKET FENCE

By Mildred Goff

A rose is much too formal,
And honeysuckle sprawls.
Verbena isn't tall enough,
And ivy is for walls.
You could use morning glories,
Geraniums, or phlox;
But nothing suits a picket fence
So well as hollyhocks.



HIRE AN ALL-NIGHT GUARD FOR \$3.95* A MONTH



An Automatic yard light gives your property solid protection against prowlers and theft—even when you're away. That's because it turns itself on at dusk—off at dawn—automatically.

An electric yard light is important for safety, too. It makes your driveways and work areas safe and easy to find. It also gives you extra hours

of light when you need them for early morning or late evening chores.

The \$3.95* rental charge covers everything—installation on an existing wood utility pole, lamp replacement, maintenance, and your electric power. For full details, call your Niagara Mohawk Farm Representative. If you prefer to buy a light, see your Adequate Wiring Bureau Contractor.

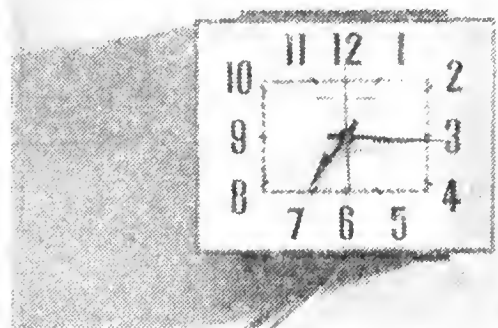
*For 175 Watt size

NIAGARA

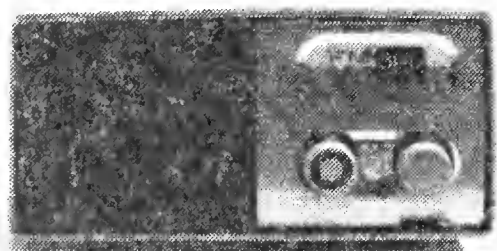


MOHAWK

INVESTOR OWNED • TAXPAYING



Two Essential Harvesting Tools!!



Your clock and radio are two essential harvesting tools, from the day the first field of early-cut hay is mowed in unpredictable May, through the day the last field of late-maturing corn for grain is picked in blustery December. And that same handy harvest help is at your finger tips for every crop from Apples to Zinnias.

Your best radio guide to good harvesting weather is WEATHER ROUNDUP at 6:25 and 7:15 A.M.; 12:15 and 6:15 P.M., over these stations.

FM STATIONS

Auburn	WMBO-FM	96.1 mc.
Binghamton	WKOP-FM	99.1 mc.
Bristol Center-Rochester	WMIV-FM	95.1 mc.
Cherry Valley-Albany	WJIV-FM	101.9 mc.
DeRuyter-Syracuse	WOIV-FM	105.1 mc.
Hornell	WWHG-FM	105.3 mc.
Ithaca-Elmira	WEIV-FM	103.7 mc.
Jamestown	WJTN-FM	93.3 mc.
Niagara Falls-Buffalo	WHLD-FM	98.5 mc.
Olean	WHDL-FM	95.7 mc.
Wethersfield-Buffalo	WBIV-FM	107.7 mc.

AM STATIONS

Auburn	WMBO	1340 kc.	Olean	WHDL	1450 kc.
Binghamton	WKOP	1360 kc.	Remsen	WREM	1480 kc.
Boonville	WBRV	900 kc.	Rochester	WROC	1280 kc.
Dunkirk	WDOE	1410 kc.	Salamanca	WGGO	1590 kc.
Elmira	WENY	1230 kc.	Saratoga		
Glens Falls	WSET	1410 kc.	Springs	WSPN	900 kc.
Gloversville	WENT	1340 kc.	Sayre, Pa.	WATS	960 kc.
Hornell	WWHG	1320 kc.	Schenectady	WGY	810 kc.
Ithaca	WTKO	1470 kc.	Syracuse	WHEN	620 kc.
Jamestown	WJTN	1240 kc.	Syracuse	WOLF	1490 kc.
Niagara Falls	WHLD	1270 kc.	Utica	WBVM	1550 kc.
			Walton	WDLA	1270 kc.

Northeast Radio Network

Ithaca, New York



Lucille Bryan, Delhi, Mark Nils Ruhlen, El N. Y. Empire winner at Oneonta Market. Carol Mattison, Brockport—winner at Caledonia. Randy Hanson, Dexter—winner at Watertown.

Empire Winners

WHEN THE annual meetings of patrons of the Empire Live-stock Marketing Cooperative are under way it's a safe bet that the thoughts of the youngsters who accompany their parents are ranging ahead to just one event—the drawing of the lucky numbers. Lucky boys and girls of school age whose relatives were consignors of record during the preceding year win purebred dairy calves, or certificates for money to purchase the calves. There are those also who win certificates for the purchase of other kinds of livestock.

This year's fortunate young folks are pictured on this page, with the exception of Stephen Bolicki, son of Mr. and Mrs. F. Bolicki of Batavia, N. Y. Stephen won a purebred gilt or barrow.

Since the thought back of the awards is to encourage young people to get experience in the selection of and caring for animals of quality breeding, it is expected that the winners will report at the next year's annual meeting. It was a special treat this year to some 500 members when Theodore Garrison, Jr. of Wallkill, N. Y. led his 18-months-old heifer into the arena at Bullville Stockyards.

Stockholders Meeting

At Empire's annual stockholders meeting, held in Ithaca, N. Y., representatives of five statewide farm organizations elected new officers and six directors. R. Stephen Hawley, owner of the Hawley Stock Farm at Batavia, was elected president, succeeding Eugene P. Forrestel, Medina, who declined renomination. Vice president is Lester W. Martin, Milford; secretary-treasurer, Clayton G. White, Stow; assistant secretary, Edward H. Foster; assistant treasurer, Michael J. Malison, both of Ithaca.

Directors elected included Mr. Hawley; Lester Martin; E. H. Fallon, Ithaca; Alex Rabeler, Sr., Bovina Center; William E. Bensley, Springville; Clayton G. Taylor, Lawtons. Others on the twelve-man board are: Clayton White; Clarence E. Johncox, Corfu; Theodore P. Gibson, Canton; Mr. Forrestel; and Grover C. Guernsey, Schoharie.



Rose Marie Dembek, Rock Tavern, New York—winner at Bullville.



Guy McGlynn, Bath, New York — winner at the Bath Market.



Patricia Langtry, Hammond, New York—winner at Gouverneur.



Christine Swanson, Interlaken — Empire winner at Dryden market. Whitney Heller III, Hamlin — winner of a dairy heifer calf at Caledonia. Sandra Jean Morgan, Holcomb — winner of a ewe lamb at Caledonia.

NAILS WITH HOLDING POWER

(Continued from Page 8)

oped was one provided with a resilient conical neoprene washer, which proved more satisfactory and more economical. However, research showed that a nail with resilient flat washers would do a better job.

The nail provided with this new washer was put through a series of comparative tests at VPI, where it excelled over other types of nails.

Fastening plywood — Resistance to immediate and delayed nail withdrawal is especially important where plywood buckling and wind suction may enter the picture. Under these circumstances, the considerably greater withdrawal resistance of threaded nails compared with plain-shank nails can be a decisive influence on the strength and life of a farm structure. A 1½" helically-threaded nail can deliver more than three times the holding power of a 2½" common wire nail.

Framing — In a test conducted at our laboratory, a house frame assembled with green lumber and plain-shank nails lost more than ½ of its initial racking resistance during seasoning of the green-framed lumber. The same structure, when assembled with annularly-threaded nails, offered 4.6 times greater racking resistance immediately after assembly and 5.7 times greater racking resistance after three months' air seasoning.

Shingles and siding — Siding and roofing materials, in shingle as well as in panel form, tend to be less effective when fastened with plain-shank nails which creep and pop.

Flooring — Squeaky floors result directly from failures in the fastening of flooring lumber to sub-flooring and joists. Threaded nails will go a long way towards applying floors firmly and solidly despite long and continued use.

JULY'S FRUIT BASKET

(Continued from Page 22)

Combine blueberries and sugar, place in a square or round 1½ quart casserole and put in a moderate oven (350°) while preparing batter. Cream butter and sugar and beat in egg. Sift flour, baking powder, and salt, and add alternately with the milk. Pour batter evenly over the berries. Bake about 45 minutes or until batter tests done, is lightly browned, and the berries bubble. Spoon from the dish to serve. Serves 6.

My family likes to pour milk over servings of this pudding. You may want to serve it with Blueberry Sauce. To make 2 cups sauce, mash 2 cups blueberries lightly, combine with ¾ cup sugar, 1 tablespoon cornstarch, dash salt, and 1 tablespoon lemon juice. Cook until clear and slightly thickened.

LATTICED SWEET-SOUR CHERRY PIE

- 2 cups pitted sour cherries
- 2 cups pitted sweet cherries
- 1 to 1¼ cups sugar
- 2 to 3 tablespoons flour

Pastry for two-crust, 9 inch pie

Combine cherries, sugar, and flour and place in pan lined with one-half of the pastry mixture. Trim ½ inch beyond edge of pan, turn pastry up and flute. Roll and cut from remainder of pastry 10 strips one-half inch wide, using a pastry cutter.

Arrange lattice pastry top by weaving 5 strips of the pastry place-

ed each way. Cut ends of each strip just to meet the fluted edge of pie. Fold a 2½ inch foil strip around the rim just to cover fluted crust, or use one of the available commercial pastry stripes. Bake in a hot oven (425°) for 40 to 45 minutes. Remove foil or pastry strip when pie is about half done.

LITTLE MISS SUMMER

(Continued from Page 22)

Basin is a fairyland, as the moon spins Miss Summer a gown of shimmering silver, with a crown of stars for her hair. In the morning we find that she lost her cobweb-lace petticoats atop the green grass in our front yard.

She welcomes the city children

and our grandchildren who come every year to pet the animals, gather the eggs, jump in the hay-mow, and pick bouquets of daisies, buttercups, and paint brush. The children show us their suntan and tell us about the wonderful ocean swimming they enjoyed at the beach down-country.

Sometimes Little Miss Summer reminds us of earlier years when her coming meant wearing "ice cream" pants, Sunday School Picnics, church bazaars, and band concerts on the village square, with peddlers selling hot buttered popcorn in small paper bags.

Just as Youth's path is not all "moonlight and roses," Little Miss Summer is pestered with insects—flies, mosquitoes, ants, and grass-

hoppers. And when she is sultry and stubborn, God sends the thunder and lightning storms to give her a good "wetting down," and to remind her that He reigns supreme. Then comes the brilliant rainbow, telling her that "It takes the tears of life to water the soul and make it grow."

With the coming of Labor Day, children go back to school and workers return to their jobs. The swallows leave for the Southland, and soon we are asking in dismay and disbelief, "WHERE did Little Miss Summer go?" She went the way of Youth and of all growing things! We will miss her, but she left us still another bright picture to hang on our memory-wall when the snow is again piled high in The Basin.

MORE THAN 9 OUT OF 10

YES, over 90% of the 400,000 annual first services to NYABC Holstein sires are to

SUPERIOR AI PROVED SIRES

Here are the number of first services in New York and western Vermont herds during the past year to a few of our outstanding AI Proved Sires which have been available regularly for use in members' herds:

Name	Number Of Firsts*	Superiority Over NY DHIA Holstein Average	
		Milk	Fat
High Meadow Farm Span	52,233	+ 937	+ 45
Stowmont Masterdean Valiant	37,230	+ 962	+ 26
Larrietta Burcar Pabst	36,692	+ 41	+ 24
Searsfarm Dean Ada Imperial	35,603	+ 1,251	+ 42
Woodside Farm Seeley Ocapok	22,771	+ 1,010	+ 14
Chemco Dean Segis	21,707	+ 967	+ 23
Spruce Lawn Waydeoc	20,368	+ 965	+ 30
Sir Seeley Adantha Gene	16,578 (9 mos.)	+ 1,159	+ 23
Stonefield Dean Lucifer Xmas	14,427	+ 1,109	+ 27
Spruce Lawn Chieftain Spice	13,005	+ 973	+ 34

*According to information published by U.S.D.A., dairy sires in artificial insemination service throughout the U. S. averaged 3,358 first services per sire in 1962.

These and other superior AI Proved Sires now in routine service at the regular breeding fee are contributing to NYABC's exclusive record. A record of extensive use of outstanding AI sires evaluated on the performance of their daughters in thousands of New York and western Vermont herds. More daughters of these sires in your herd put more dollars in your milk check!



Promises are not important; what really counts is what you actually get in AI Proved Sires regularly available. You can get many profit paying animals through 100% use of the NYABC program in your herd. Call your NYABC technician.

YOUR HEADQUARTERS FOR SUPERIOR AI PROVED SIRES



ED EASTMAN'S PAGE



It Could Be You!

IN ORDER to be of the most help to you who have heart trouble or may have it (and that includes everybody). I want to be very personal and give you my own experience.

Early one morning, some 18 years ago, I was doing my farm chores on the run, as usual. In order to carry on my business as editor of *American Agriculturist*, I had to get up very early every morning to help with the milking and other chores before eating breakfast, change my clothes, and drive five miles to my office in Ithaca.

As I was hurrying on this particular morning, suddenly I felt a sharp, tight pain in my chest, a little like a feeling that a boy has when he has been running too fast and too far. Thinking little of it, I sat down on a milking stool to let the pain pass, then started hurrying again. This time, the pain came much harder.

To make a long story short, I ended up in the hospital for a long, sad stay with a heart or artery disease called angina pectoris. When I got out of the hospital, the family had sold our beautiful herd of purebred Jerseys and rented our farm land.

One is always thinking of **what might have been**. If I — like millions of others are still doing—had not continued to try to crowd a week's work into one day—well, things might have been different. Fortunately, while unable since then to do much of the physical labor farmers have to do, my disease did not interfere with my work as a writer and editor.

I was fortunate also that, unlike a coronary occlusion which strikes without warning, angina always tells me when I am going to have an attack and, if I am wise enough to stop instantly whatever I am doing, I can usually avoid the attack. Unlike the coronary attack which directly affects the heart, angina pectoris is a disease of the blood vessels which feed the heart, which results in shutting off part of the supply of blood to the heart. This causes a feeling of suffocation and spasms of pain in the chest. If the attacks continue, the heart will eventually be affected.

As you no doubt know, heart diseases cause more deaths than all other diseases combined — 50 percent of all deaths between 45 and 64. More than 10 million living Americans, including half a million children, are afflicted.

What you are really interested in—and should be—is **how to prevent heart trouble, and how to live with it safely after you get it.**

Maybe my study of the disease and personal experience with it will help you. This knowledge is especially timely right now, because farmers are doing the heavy, hot work of haying and harvesting, which is particularly dangerous. No person with heart trouble—or a tendency toward it—should ever get into a hot haymow, or try to unload hay on the west side of a barn or shed.

Even with modern equipment, farming is still a business requiring much **heavy lifting**, something a heart patient should never do.

My mother, who lived with a heart condition for many years, said that she just didn't dare to get mad, and I never saw her angry in the last twenty years of her life. **Strong emotions** like anger, fear, or excitement of any kind are bad. When someone yells: "The cows are in the corn!" or "The barn's on fire!" let the other fellow do the running. You may drop dead if you try it.

One who has heart trouble should be careful about **overeating**—or strenuous exercise after eating. And that's good advice for anyone, sick or well. It's better to eat several light meals a day than one big one. Overweight is dangerous.

Heart specialists emphasize the need for **exercise**. Here again you must use caution and not overdo, and farmers probably get enough exercise from their regular work.

It's just plain common sense and good insurance for **anyone over 40** to have a regular physical examination. For a person with a heart condition **this is a must!** Your doctor will include in this examination an electrocardiogram to give him an exact picture of what your heart is doing. It should go without saying that plenty of rest and a full eight hours of sleep are necessary. Becoming overtired is exceedingly dangerous.

As to medicine, your doctor, of course, will be your guide. Those who have angina must always carry little nitroglycerin pills.

The whole business of keeping well with a heart condition can be summed up in just one word—**moderation**. If you have had a coronary heart attack or have angina, after a long, complete rest you can live and work many years, as I have, **IF YOU WATCH YOUR STEP!**

WHY NOT?

With a little planning and effort, **every** farm family could have a vacation, but too few get any rest from the regular routine.

On most farms there is a lull in farm work between haying and harvesting. Why not plan to give yourself and your family a little vacation then?

You can't get away? Well, why go away and spend a lot of time and money and get all tired out? **Have your vacation right on your own farm!** Get some simple, practical camping equipment, pick out a beautiful spot on your farm—if possible, near a spring or other water supply, or perhaps near a babbling brook, pond or lake. Try to find a place free from mosquitoes.

Put up a little shack—maybe open at one end and equipped along the sides with some crude bunks. Build a fireplace for cook-

outs and you have it made! If you don't want to bother with a shack or cabin, a good tent will do. This will not be as comfortable as a permanent shack, but it will give you the advantage of camping in different places.

You and your family can spend weekends at your little camp frequently—or even run off for occasional nights — children can do most of the work, which they will enjoy. You can have picnic meals and a generally grand and restful time. During the summer, too, take a few days of vacation from your work and use your camps as headquarters from which to drive to interesting, beautiful or historical places, not too far away.

Above all, use this time **when the children are free** from school or home from college or business for **real family togetherness**.

HAYING TOOL CHANGES

If you are fifty years of age or older, did you ever stop to think how haying methods and equipment have changed in your lifetime? The history of haying is told in the changing equipment, and most of these changes have come about in one man's lifetime.

MOWING OR CUTTING HAY—Sickle (mentioned in the Bible), scythe, mowing machine (1 or 2-horse with 4 or 5-foot cutter bar to tractor-drawn mower with 6 or 10-foot cutter bar), chopper, crusher, self-propelled windrower.

GATHERING HAY—Hand rake, pitch fork, walking-revolving dump rake, 1-horse spring tooth riding rake, side delivery rake, buck rake, hay loader, self-propelled baler.

MOWING AWAY THE HAY —Pitchfork, horse fork, baler elevator, blower (for grass silage) barn dryer.

POWER DEVELOPMENT IN HAY HARVESTING—Man power, oxen, horse power, tractor.

What will the hay equipment of our grandsons look like? What do you think?

PLEASE WRITE

I have always made it a practice to answer every one of the thousands of letters that I have received from readers of *American Agriculturist*.

Now, increasing postage and other costs make this difficult to do. So won't you continue, as you have in the past, to write me often on any and all subjects, but forgive me if I don't answer except in cases where you want advice or help.

Be sure to send letters to E. R. Eastman, **515 North Tioga St., Ithaca, N. Y.**

EASTMAN'S CHESTNUT

In the baggage car was a dog. The conductor came through and said to the baggage master:

"Gee! That's a beautiful dog. Where is he going?"

"I don't know," snapped the baggage master disgustedly, "and neither does the dog. The d-n fool ate his shipping tag!"



You have to go no farther than your own backyard or your back lot to build a table and a fireplace, or even a small overnight camping shack for temporary vacation fun. Even a good tent will do. Break away occasionally if only for an hour or two from the regular routine. Why not?



SERVICE BUREAU

MANY THANKS

Have you written in answer to one of our "Can You Help" requests and never received a reply? Many, whose requests we have printed, write us and express their gratitude, but tell us that they have been so swamped with letters they have had to give up trying to answer them. They ask us to thank you folks, but lack of space, unfortunately, prevents us from printing each note individually. So, this is a general expression of appreciation to all of you who kindly answer these requests.

GOT TAKEN

"About two years ago a fellow stopped and wanted to clean our septic tank. When he finished, my wife gave him an \$83 check and he only gave her back \$15. Later, I found out the going price for a one-family tank is about \$25. I have been trying to find this fellow ever since."

Since this happened two years ago, it is unlikely, even if this man could be located, that any settlement would be made. It is always wise, before having any job like this done or reaching any agreement, to check on the going price in your area.

WASHED AWAY

"Last summer we had our buildings painted and we paid the painter \$900. He gave the house two coats, but it is peeling now and is an awful-looking mess. After the first rain, the paint was practically all washed off the silos and they look as though they had never been painted. Most of the pails he used to paint with had no labels on."

"I guess nothing can be done now, but you might warn others."

This seems to be a chronic problem and emphasizes the importance, where home improvements are concerned, of hiring someone you know or with whose reputation you are familiar. If you have any doubt about the quality of paint, you can buy the brand you prefer and hire a painter to put it on.

DIDN'T LISTEN

"I am ashamed to write, but in doing so may keep someone else from making the same mistake. In the winter

I wrote you, asking about a homework company. You answered and I should have listened, but I didn't and decided to try it.

"I mailed the coupon with \$3, and received their sample and instructions together with a price list. The sample was very cheap-looking and so poorly made that I wouldn't wear it myself, let alone try to sell it.

"I returned everything by insured mail almost three months ago, believing they would refund my \$3 as promised in their literature. I have also written them since, but have had no answer."

We have never recommended any homework companies because we do not put much faith in companies that promise to furnish you with work to do at home and then the first thing they want is money. It seems to us they are more interested in getting your money than in helping you.

Our subscriber frankly admitted she "goofed" after getting our advice to the contrary. In this case, we were fortunate in getting her refund.

CAN YOU HELP?

Mrs. G. M. Allen, Worcester, N. Y., would like to locate a Westinghouse Cook Book, copyright 1954, prepared by Betty Furness; no longer in print.

Mrs. George J. Morse, 34 Staples St., Lowell, Mass. would like information concerning the parents of Ammi Buck, possibly of Antrim or Londonderry, N. H. She would like to know to whom Ammi was married and when, her birth date, and when deceased.

ADDRESSES WANTED

Harold P. Clough, born in Warner, N. H., who was last seen about Sept. 15, 1922 at 40 Messer, Laconia, N. H.

Mr. H. B. Vail, Box 672, Rt. 1, Riverhead, L.I., N.Y., would like to hear from the lady in Vermont, who formerly lived in Huddersfield, England, in reference to the words of the song, "When I'm a man, my plan will be to marry you."

POULTRY WASTE DISPOSAL

(Continued from Page 13)

cleaned oftener than every 5 or 6 years. The floors of these pits are earth and this may have something to do with the slow buildup. The only real problem I've heard of in connection with this method is rodent control, and it's not insurmountable.

Composting works well in some areas like California, particularly with litter material. However, I do not see much future for composting manure from our high density operations in the Northeast.

Dehydration is a possibility, but the equipment is large and costly; unless it is strictly isolated, it must be equipped with air scrubbers to remove odors. True, dehydrated material can be sold as a fertilizer, but it will cost about \$25 to \$30 per ton to produce.

Incineration can also be done, but it is expensive and there is no possibility of sale for the end product. More research is being done in this direction.

Power Tool Accident Causes Loss of Leg



Mr. Herbert Hodnett of Fillmore, N. Y. receives \$2005.00 check from local agent Raymond McGuirl, Wellsville, N. Y. While using a skill saw at home it kicked back, slipped out of control and ripped into his upper leg. Because of the severe cut and developing gangrene, amputation was necessary.

Mr. Hodnett renewed for the second year two North American policies with total annual cost of \$25.00. Here is how they paid:

Series 505 NYB

Loss of leg with accumulations	\$825.00	
Hospital benefits	180.00	\$1005.00

Series ME26 NYA

Medical Expenses		\$1000.00
Total		\$2005.00

OTHER BENEFITS PAID

Keith Fryer, Altamont, N. Y. \$216.67 Belt flew off motor of pump, injured throat	Howard Kelly, Pine Bush, N. Y. 218.57 Caught in field chopper, fracture of & cut thumb
Albert E. Bailor, Angelica, N. Y. 210.00 Crushed by coil, injured back, hip, knees	Lloyd Valentine, Lyndonville, N. Y. 1044.63 Thrown from farm trailer, internal injuries
Charles Bowman, Windsor, N. Y. 579.17 Fell, injured knee	Leahora M. Bliven, Schenectady, N. Y. 1063.57 Auto accident, broken nose, injured arm, thigh, back
Robert L. Lockwood, Randolph, N. Y. 439.11 Tractor tipped over, injured forearm, thigh, knee	Emma Peet, Nicholsville, N. Y. 200.00 Fell in house, injured neck & back
Carlton Houghton, Scipio Center, N. Y. 345.46 Hand slipped into pulley, cut hand, broke finger	Bertha Mann, Middleburgh, N. Y. 1205.79 Auto accident, broke thumb, internal injuries, cuts & bruises
Clyde N. Swezey, Sherman, N. Y. 773.13 Kicked by cow, severe fracture ankle	Patsy Schimizzi, Watkins Glen, N. Y. 203.35 Fell, injured back
Mabel Reese, Pine City, N. Y. 589.54 Auto accident, injured leg and shoulder	Edith Crosssett, Arkport, N. Y. 1169.19 Cow struck her in eye, detached retina
John F. Meyer, Oxford, N. Y. 317.55 Tractor accident, fractured ankle	Kenneth Pipher, Tioga Center, N. Y. 793.39 Fell from ladder, fractured vertebra & ankle
Raymond Hebert, Churnusco, N. Y. 132.08 Injured while loading wood	Walter McFall Sr., Trumansburg, N. Y. 1122.30 Fell from ladder, fractured vertebra & ankle
Susie M. Vincent, Marathon, N. Y. 709.23 Hit by car, head injuries, body bruises	Horace R. McEachron, Greenwich, N. Y. 471.42 Pedestrian accident, concussion & fractures
Olga Lubbers, E. Meredith, N. Y. 335.00 Farm Truck Accident, fractured ribs and clavicle	Theofield DeWind, Newark, N. Y. 1285.00 Hit by chain saw, fractured leg, severe cut
Violet Schickler, E. Aurora, N. Y. 502.05 Auto accident, whiplash neck, back injury	John F. Hackett, Java Center, N. Y. 1101.28 Fell off roof, broke shoulder, ribs, concussion
Joseph Boileau, Chateaugay, N. Y. 110.00 Caught in power take off, injured arm	Robert Cummings, Dundee, N. Y. 1250.00 Fell off truck load of hay, broke pelvis
Dennis Gray, St. Johnsville, N. Y. 253.90 Fell, fractured nose with hematoma	Otto E. Allen, Union City, Pa. 561.17 Tractor tipped over, broke shoulder, cuts & bruises
Howard Hall, Batavia, N. Y. 1182.88 Kicked by cow, fractured jaw in 3 places	Mildred Joslin, Springboro, Pa. 108.56 Kicked by cow, injured leg
Clifford Matthews, Cairo, N. Y. 860.00 Auto accident, fractured hip	Claude Eldred, Honesdale, Pa. 250.00 Knocked down by cow, injured collar bone
Mary Taylor, Little Falls, N. Y. 371.60 Auto accident, injured back, wrist	Kenneth Gernert, Troy, Pa. 390.60 Horse fell on, injured fractured knee
Howard Virkler, Croghan, N. Y. 782.32 Slipped on wet floor, injured knee	Ruby Hunt, Elkland, Pa. 1014.92 Slipped & fell, fractured hip
LaVerne G. Orman, Geneseo, N. Y. 531.64 Caught hand in v-belt, fractured fingers, lost little finger	Lucy May, Granville Summit, Pa. 858.60 Fell down steps, broke elbow, injured ankle
Adelle Storrier, Eaton, N. Y. 486.84 Slipped & fell, fractured ankle	Arling M. Zellars, Port Murray, N. J. 736.20 Fell, fractured heel & lumbar spine
Henry Moore, Palatine Bridge, N. Y. 191.00 Thrown off wagon, internal injuries	Ernest W. Kuster, Jr., Ringoes, N. J. 265.28 Dribbling on tractor, foreign body in eye with chemical burn
Darwood G. Lane, Verona, N. Y. 369.10 Slipped & fell between logs, injured knee	Bertrand Rottkamp, Fraebold, N. J. 1730.00 Auto accident, fractured skull, ankle, cut knee
Arnold Dennis, Pompey, N. Y. 896.00 Farm truck collision, injured chest, ears & bruises	John W. Van Wagoner, Pemberton, N. J. 720.71 Caught in silo unloader, cut foot, infected
William Corey, Naples, N. Y. 524.27 Fell off tractor, injured back	H. Lee Melton, Wrightstown, N. J. 1097.87 Auto accident, broke ribs, teeth, concussion

Keep Your Policies Renewed

NORTH AMERICAN ACCIDENT INSURANCE COMPANY
(In New York State)

THE NORTH AMERICAN COMPANY
FOR LIFE, ACCIDENT & HEALTH INSURANCE (In Other States)
GENERAL OFFICES: CHICAGO, ILLINOIS

SAVINGS BANK BUILDING

ITHACA, N. Y.

SERVICE BUREAU CLAIMS RECENTLY SETTLED

NEW YORK	
Mr. Arlo Johnson, Lodi (refund on tips)	\$110.00
Mrs. David Decker, Waterloo (refund on manuals)	10.00
Mr. Andrew Rivers, Ogdensburg (refund on motor)	20.00
Mr. Arthur R. Glover, Shortsville (payment on acct.)	150.00
Mrs. Ernestine P. Toelsin, Clarence (refund of ins. premium)	121.00
Mrs. Roy Bredon, Angelica (refund on rosebush)	3.95
Mrs. Raymond Hirshey, Lowville (refund on order)	7.00
Mrs. T. Ray Benton, Sardinia (refund on order)	3.31
PENNSYLVANIA	
Mr. Glenn Beekwith, Rome (refund on hay)	135.00
NEW JERSEY	
Mr. Carl S. Raee, Blairstown (replacement allowance)	28.00
MAINE	
Mrs. Dana W. Everett, New Sharon (refund on order)	3.00
MASSACHUSETTS	
Mr. Peter Olsen, Granville (refund on tree)	5.05
RHODE ISLAND	
Mrs. Albert Laroche, Hope Valley (refund on saw)	134.19

YOUR GLF PETROLEUM REPORT

- new Power-Champ diesel fuels reduce expensive maintenance and down-time costs
- new additives prolong the life of your tractor
- July harvest specials save you money

Are all diesel fuels really just about the same?

Do additives play an important part in making your diesel engine run more efficiently? Or are they advertising "gimmicks" used only to make one fuel appear to be superior to competitive brands?

These questions are often asked—and rightly so—by cautious farmers who must get maximum return for each dollar spent.

Today's farmer must make many right decisions to keep his farm—equipment, land, buildings—operating at a profit. His farm represents a complex business backed by a large investment with little margin for error.

As your working partner, GLF knows how important it is to have all of the facts before you make a decision. And how disastrous it can be to invest hard-earned dollars before you have reliable facts.

Here are the honest facts about new GLF Power-Champ diesel fuels.

why GLF has two diesel fuels

All diesel fuels are not the same. In fact, GLF has two—Power-Champ No. 1 and No. 2. And there's a good reason for having two fuels.

We believe the user of diesel power is entitled to economy and dependability of performance under widely different circumstances. Obviously, one diesel fuel cannot economically be used for all jobs. GLF Power-Champ No. 1 and No. 2 give you a choice of quality-controlled diesel fuels for peak performance at lowest possible cost. We'll help you select the right fuel to do the job right on your farm.

The manufacturers of diesel tractors and trucks have established rigid specifications for fuels. If a fuel does not meet these requirements, your engine loses efficiency and you lose money. GLF is proud to point out that Power-Champ No. 1 and No. 2 meet or exceed all of the requirements of modern diesel engines.



New distinctive green color tells you every tankful of GLF Power-Champ has power and performance.

Cetane—the rating given a diesel fuel to measure its firing quality—is one of the most important requirements specified by the makers of diesel tractors and trucks.

The firing quality — cetane — influences starting, light load operations and completeness of combustion. Tests conducted on samples of leading diesel fuels showed their cetane rating as follows:

Brand A	43.0	GLF No. 2	46.0
Brand B	43.0	Brand E	47.2
Brand C	42.8	Brand F	49.5
Brand D	45.0	GLF No. 1	50.6

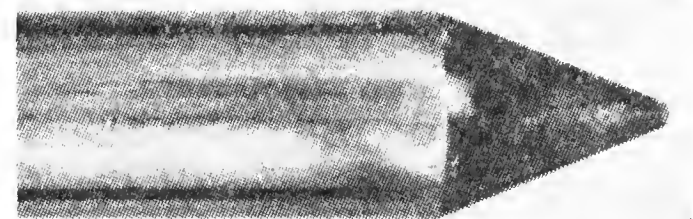
As you can see, GLF scored a cetane rating higher than six competitive fuels with Power-Champ No. 1, and outperformed four major producers with Power-Champ No. 2. GLF fuels are fully qualified to work with any diesel tractor or truck.

proof is in the product

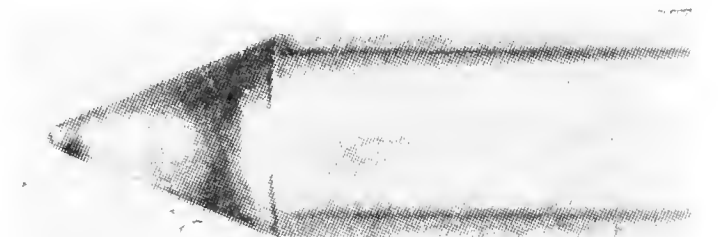
New GLF Diesel Fuel Additives—give Power-Champ No. 1 and No. 2 extra benefit ingredients to reduce maintenance costs, rust, smoke and soot, while they improve ignition, starts, winter flowability, engine efficiency and fuel injector life.

A test fleet of trucks using the new additives averaged 30,000 miles longer injector life. This means a reduction in maintenance costs and out-of-service time.

Further tests prove new GLF Power-Champ reduces smoke up to 8% and increases power from 5 to 15%.



Gum-coated injector cuts power



New GLF additives kept this injector clean allowing the engine to work to full horsepower



Both of these cups contained diesel fuel and a baked-on coating of a gummy, sticky deposit. The clean cup had diesel fuel with new GLF additives; the dirty cup was untreated.

HARVEST TIME SPECIALS

good thru July only

		Price Regular
Multi-Service Grease: Cartridges—Case (10/cs) —		
	14 oz.	\$ 3.45
	—Overpack (6 cases)	\$18.95
	—120# drum	\$23.90
Viscous H.D. Grease	—120# drum	\$17.95
Gear Oil, Reinforced E.P.	—120# drum	\$20.95
Viscous Grease—35 lb. lug cover pail		
with Universal gun filler		\$12.90
or with a Load-A-Matic grease gun		\$ 9.75
Multi-Service Grease—35 lb. lub cover pail		
with Universal gun filler		\$14.95
or with a LOAD-A-Matic grease gun		\$11.75

Order today from your GLF man...offer ends July 31.

This is the full story of new GLF Power-Champ diesel fuels. As your Cooperative, GLF has worked to produce these fuels for diesel use on the farm. Try a tankful soon and see why GLF Power-Champ diesel fuels outperform other brands in testing laboratories, experimental fleets, and now on farms just like yours. Cooperative GLF, Exchange, Inc., Ithaca, N. Y.



GLF PETROLEUM SERVICE



AUGUST 1963

American Agriculturist

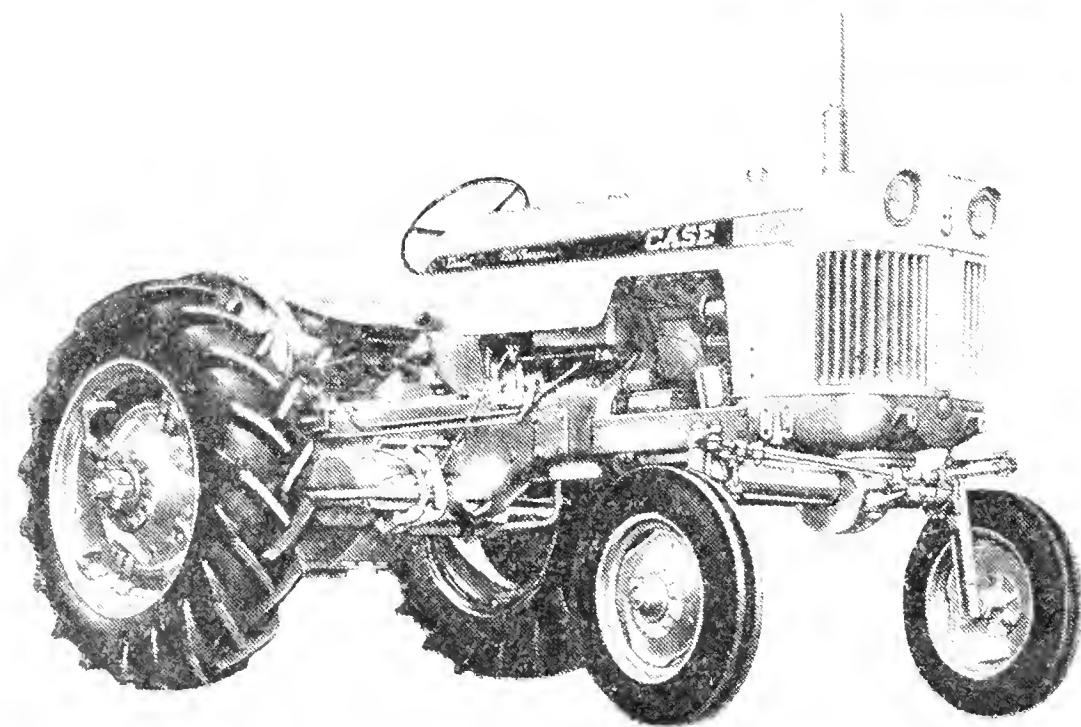


**NEW YORK STATE
EXPOSITION**
SYRACUSE
7 DAYS / 7 NIGHTS
AUG. 27 / SEPT. 2

A CONSTRUCTIVE FORCE IN NORTHEASTERN AGRICULTURE



Only **CASE** gives you draft-control *and* record fuel economy, too!



Most any 3-plow tractor these days will give you a good draft-control system. Admitted.

But the Case 430 diesel is the ONLY one that holds the world diesel fuel economy championship in the 30-45 hp class. It has held that record for two-and-a-half years.

Look at the *whole tractor*.

Compare engines. The 430 diesel has a real tractor engine—big-bore, long-stroke—that will pull through when high-speed automotive types falter and stall. Built to L-A-S-T, too, with heavily-ribbed block—counterbalanced crankshaft—five main bearings.

Compare gear speeds. The Case 430 gives you your choice of 12-speed triple-range, 4-speed standard or

8-speed dual-range shuttle transmissions: the right speed for every job.

Compare the convenience and comfort features, too—and all the other things that make a total tractor. You'll end up convinced the Case 430 Draft-o-matic is quite an all-around *package*. See your dealer today and find out for yourself.



EASY TO OPERATE—a single lever lets you raise and lower implements . . . set draft and depth . . . regulate draft when desired.

EASY TO GET AT—all Draft-o-matic components are *outside* the tractor, permitting fast and easy servicing. No need to open up the tractor.

EASY ON THE WALLET—fewer moving parts with less "travel" mean less adjustment, less wear, less maintenance cost.

IT'S SMOOTHER—MORE RESPONSIVE!
TRY IT OUT ON YOUR FARM

Take a look at the **NEW CASE**

J. I. CASE CO. • RACINE, WIS.



SEE YOUR CASE DEALER FOR QUALITY GOLD SEAL USED EQUIPMENT

BHL



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EDITORIALS

BY GORDON CONKLIN



FRINGE BENEFITS

DID YOU notice the terms of settlement between the steel companies and the steelworkers union? It called for a 13 week sabbatical leave every 5 years and some additional coverage in company-financed health insurance. Conspicuously absent was any substantial increase in cash wages.

Employees everywhere are pushing for fringe benefits because they pay no income tax on them. Among such benefits are employer-financed health insurance, life insurance, recreation areas, noon meals, retirement plans, etc. It is reported that about 75 percent of all employees in this nation are covered by health insurance for which their employers pay at least part of the cost, and that more than 80 percent have some type of life insurance on a similar basis.

Are there possibilities for non-taxable fringe benefits for farmers? Of course, most of those farmers who work part-time off the farm receive some of these tax-free forms of payment for their labor. Any ideas on how agriculture can share more fully in this feature of non-taxable earnings?

LOCAL CONTROL

SOME OF US who grew up on farms but have changed to other occupations have experienced a decline in physical strength. Muscles that once carried grain, lifted fertilizer—and did a hundred and one other jobs—now push pencils, shuffle papers, and lift food-laden forks to our mouths. Without strenuous use, our muscles have shrunk and no longer have their former stamina and vitality.

So it is with the exercise of local control in our own communities. Recently I attended the

annual school district meeting at Trumansburg, N. Y., and found only 36 people in attendance — more than half of whom were teachers, members of the School Board, or others closely associated with school administration. There are between 2,500 and 3,000 people eligible to vote on school district matters in this area; the total attendance represented somewhere around one percent of those eligible. The school is by far the largest "business" in the community, with an annual budget considerably in excess of one million dollars.

Just a few hundred yards from this meeting a local fair hustled with activity. Hundreds of people—most of whom have children and taxes going to the school system—enjoyed the cotton candy, the bright lights, and the sideshows.

I am convinced that a maximum of local control is the most efficient and most desirable way to govern in a democracy. But I also believe that this control, like a muscle, will waste away if it is not exercised.

Maybe you have ideas on *why* we (and I include myself) are all too apathetic in using the rights—and accepting the responsibilities—which are ours. Perhaps you also have suggestions on ways to stir up greater participation. I'd be glad to hear them.

CASE FOR PROMOTION

YOU KNOW, nothing is perfect in this old world of ours; some folks even find fault with motherhood. Every person you and I know has some weakness; every program has disadvantages.

So it is with the program to promote apples in New York and New England. Considerable resentment was voiced when laws were passed requiring mandatory contributions to a promotional fund. However, evidence is accumulating that advertising has helped move at good prices a lot of apples that might have otherwise been a drag on the market. For example, the November 1962 movement of McIntosh apples set an all-time high in response to coordinated radio, television, and newspaper advertising campaigns.

Suppose milk producers should take notice?

THE SACK IS BACK

WHEN it comes to visiting with members of the fairer sex, I suffer from a chronic case of foot-in-the-mouth disease. I somehow always seem to congratulate the bride and offer best wishes to the groom. Just the other day I tried to be gallant and complimented a lady at a banquet on her lovely hairdo, facetiously remarking that drinking milk was responsible for growing such lovely tresses. Later, a pitying friend explained the flattered gal's frosty attitude—the reason why her hair looked especially nice was that she had just had her wig dry-cleaned!

But these negative responses were nothing compared to what happened recently when my dim awareness finally registered the fact that some of the girls are returning to wearing a Rube Goldberg version of the pasteboard

box—once called a sack and now politely referred to as a shift. Anyhow, I had plumb forgotten the era of the sack as a substitute for a dress, and so with complete sincerity greeted a shift wearer with the hopefully enthusiastic remark, "When is the blessed event due?" Fortunately, my reflexes are still good!

Some of the old-timers in the feed business can remember when feed was put up in sacks made of cloth especially designed to be usable for making dresses—a forerunner of our modern cereal box-top offers. Maybe some enterprising feed manufacturer could figure out a way to capitalize on the current interest in removing curves from the American scene.

Anyway, girls, from the masculine side of the fence comes a chorus of nays to the shift to sacks. As the wag said, "Sacks are for potatoes, but not for tomatoes."

COLD WAR WEAPON

MR. KHRUSHCHEV has exploded a 100 megaton bomb, and now tells us he can blow us all to Kingdom Come. We're told that he hesitates to push the button only because he knows that we pack our own .45 and just might beat him to the draw.

But Mr. K. also knows that the farmers of the United States have a productive capacity far beyond those in his country. He pounds his shoe on the table in frustration as he learns of bumper crops in America while his own pet projects on the Siberian steppes yield only bureaucratic promises. The untold story of the age is the almost unbelievable productivity of the people who farm up and down the roads of America.

Yet, our agriculture developed in comparative freedom—with supply and demand constantly working as an adjuster and a stimulant. In Russia, the production quota, or "norm," has been the goad to farm workers; in our country the profit motive has been the spur. No "farm problem" as we know it in Russia—there aren't any profits to go up or down; there is no free enterprise; half the population is still engaged in food production.

But now we see great demand to shackle agriculture in this country, based upon the belief that a "compassionate" administrator can dispense economic justice better than the "inhuman" market. As we seek to hammer out the inevitable compromises somewhere between pure free enterprise and pure socialism, let's not tie farmers' hands to create artificial inefficiency. The horn of plenty filled by those hands is as much a deterrent to Mr. K's warlike nature as is the sword forged by SAC bombers.

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AMERICAN AGRICULTURIST

A Constructive Force in Northeastern Agriculture

Founded 1842 Volume 160 No. 8

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Chore-power that's full-sized in the field **RUGGED, COMPACT OLIVER 550 TRACTOR**

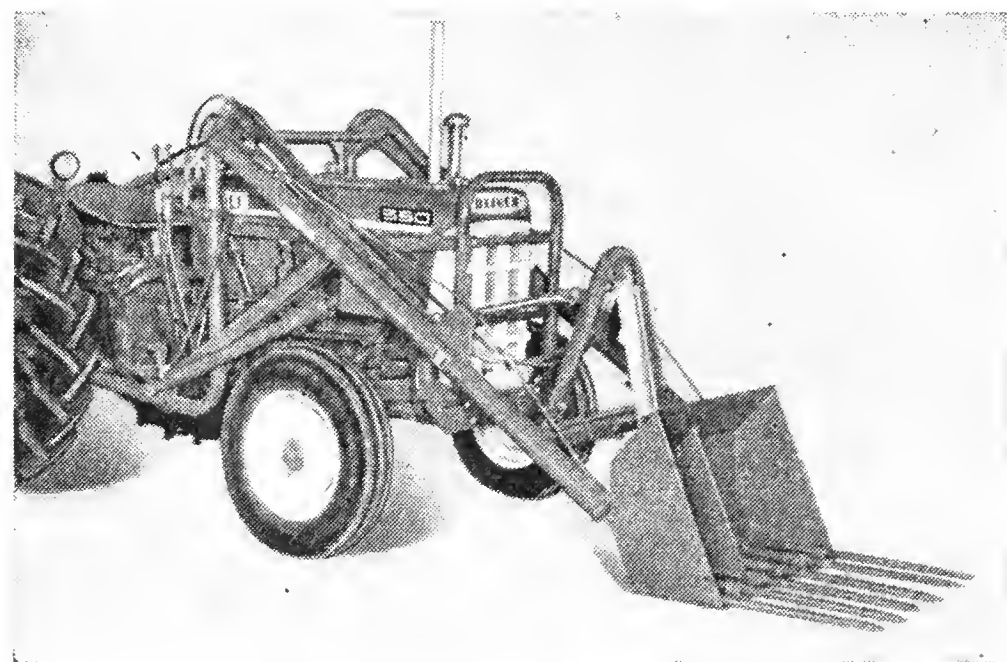
Here is power and capacity to handle a big share of your heavy field work, in a tractor that has the compactness and easy-handling you want for chore jobs.

The Oliver 550 can earn its way on almost any farm, big, small, or medium-sized. Its 43 H.P. gasoline or 41 H.P. diesel engine (PTO) is thrifty with fuel. Six forward speeds and two reverse are arranged for efficiency and convenience. Rubber torsion seating means an easy ride. Independent PTO makes the 550 ideal for mowing, baling, and other hay or harvest-time needs.

Oliver 360 Series plows take full advantage of the 550

tractor's draft-sensitive 3-point hitch. Automatic draft control reduces depth variations to a minimum while Oliver plow design takes heavy trash and tough soils in stride. There's 26 inches of beam clearance, and 29½ inches beneath the rugged backbone. Cushion-Action trip is available to save breakage and time. It absorbs the initial shock, then lets each bottom swing back independently.

Let your Oliver dealer show you how the 550 tractor sets a new pace for field and feedlot power. It does so much more that you can't afford to use an older tractor. Oliver Corporation, Chicago 6, Illinois.



◀ **Handy and Able, Indoors or Out**

The Oliver 59-A loader matches the compact design and easy handling of the 550 tractor. Despite its low cost, this loader has hydraulic bucket control and sturdy trussed construction. Lifting capacity is a full half ton. The single-acting hydraulic rams are operated by the 550's regular hydraulic system.

OLIVER

*Look for this sign,
new symbol of prompt,
dependable service and genuine Oliver parts.*





FARM DOLLAR GUIDE

NEW YORK DEPARTMENT OF AGRICULTURE AND MARKETS HAS STUDIED RECORDS of milk buyers and has increased the size of the bond required to protect milk producers.

Also, an additional 600 to 700 firms and individuals who buy livestock from producers were brought under the State's licensing and bonding law on July 1.

USDA IS REPORTED AS STUDYING CHANGES in the "certificate plan for wheat," voted down by farmers, to make it more palatable next year. Rumor says a voluntary plan might be proposed, paying farmers who complied with government wheat and feed grain diversion program and penalizing farmers who overplanted by loss of supports! Obviously, defeat of the 1964 wheat program did not persuade government planners to let farmers run their own business.

USDA FARM ECONOMISTS HAVE REVISED 1963 estimates of net farm income downward by about 3 percent to \$12.5 billion, or perhaps lower. Reasons are: A sharp decline in livestock prices, a short winter wheat crop, and higher farming costs. Even so, total U. S. 1963 crop production is expected to be close to or exceed the 1962 high of 108 percent of the 1957-59 average! Northeast remains in relatively good position.

NEW LAW IN NEW JERSEY, EFFECTIVE AUGUST 25, requires potatoes sold in the State to bear a grade label and prohibits misbranding. If packed in used container, all labels which do not apply must be removed.

PER CAPITA U. S. CONSUMPTION OF DAIRY PRODUCTS in 1962 was 637 pounds of milk equivalent compared to 640 pounds in 1961. Since 1955 average drop per year has been 10 pounds. But in the New York milkshed May fluid milk sales were 1.12 percent above May 1962 and the blend price was up by 3 cents per cwt.

THE NEW YORK STATE FRUIT CROP (EXCEPT PEARS) will be smaller than last year. N.Y.S. apples down 10 percent, U. S. down 7 percent; peaches in Western New York up slightly, Hudson Valley down, U. S. Crop down 4 percent. Sour Cherries down 19 percent in New York; down 49 percent in Great Lakes States. Grapes in Great Lakes States down 37 percent.

DURING JULY AND AUGUST, SUSPENSION of certain provisions in milk order for New York area will lower uniform price about 3 cents. (Cooperatives asked for suspension ONLY on butter and cheese.) Without such suspension a lot of milk might have been without a market. Final decision on a Class III price hearing hoped for by fall.

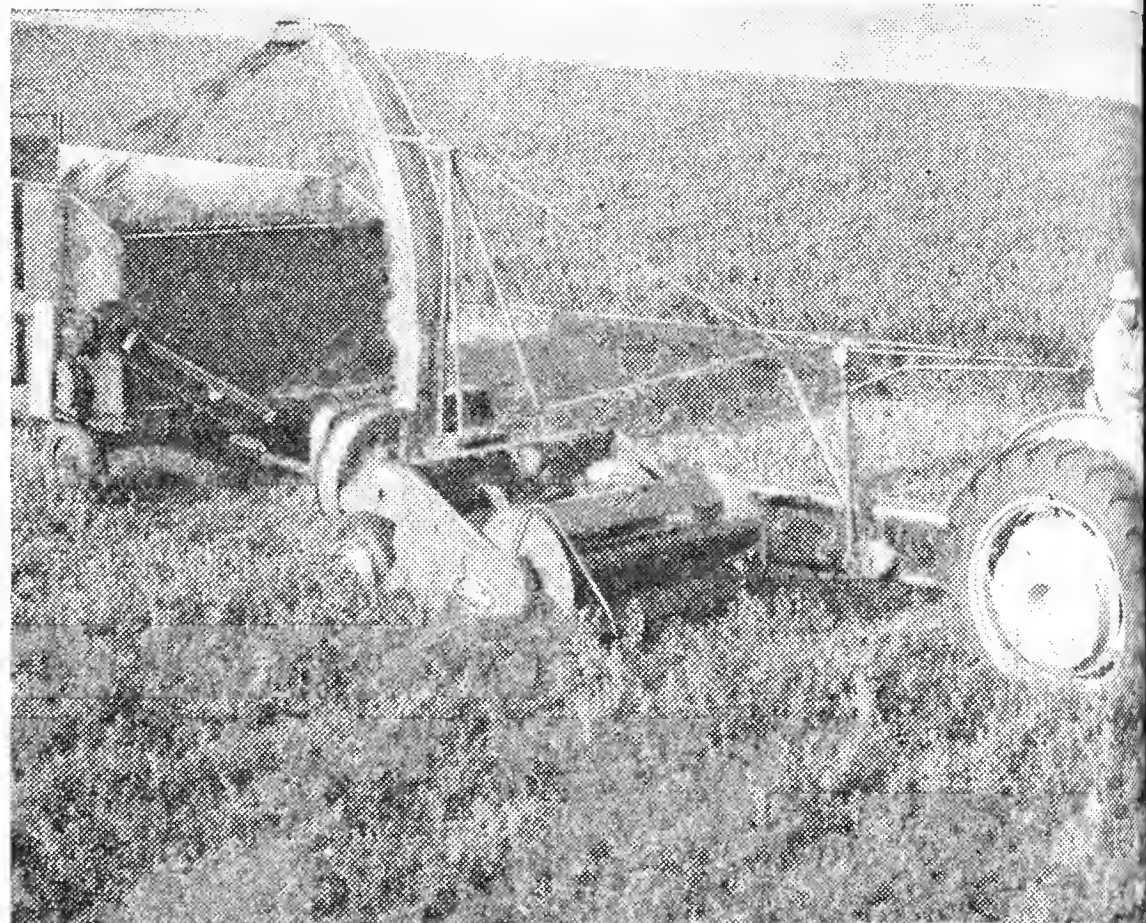
The Song of the Lazy Farmer



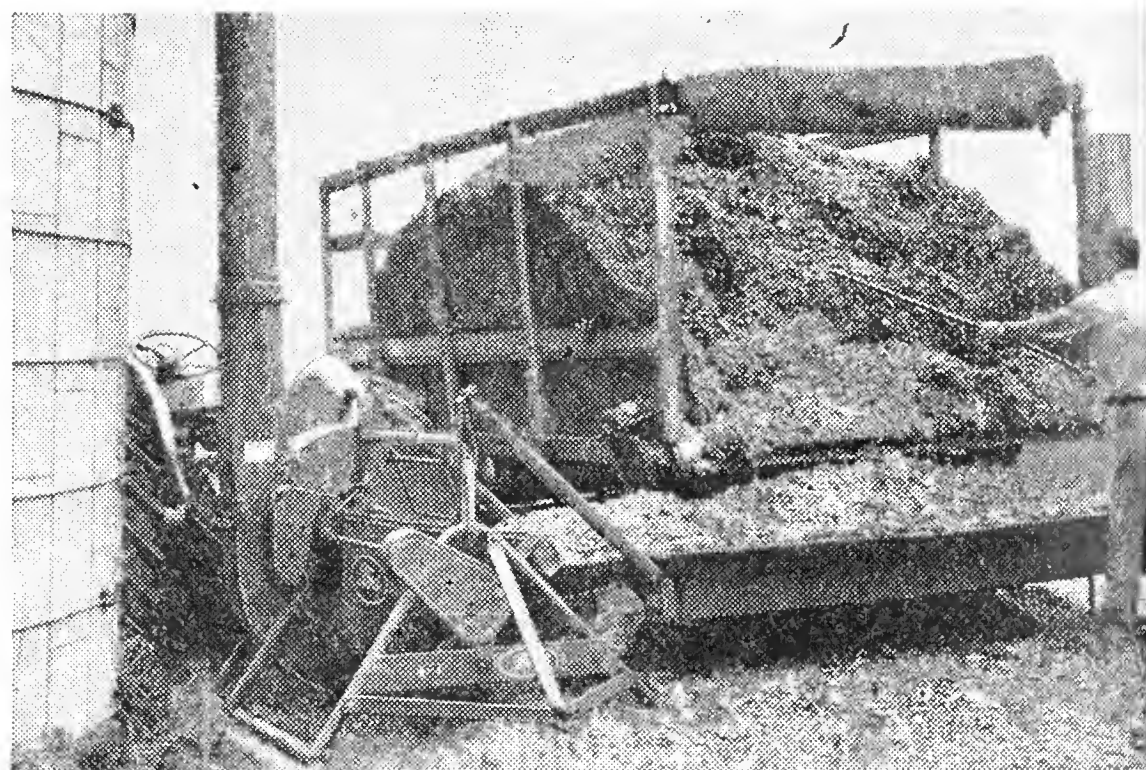
THIS TIME of year, most generally, the fishing's good as it can be; the big ones bite to beat the band, they'll almost eat from out your hand. Down in the shallow pools they lie, a-waiting for a worm or fly; 'twould be a dirty rotten trick to let 'em stay there in the crick and starve to death by slow degree instead of going happily. I know when my turn comes to die, I want to fill up first on pie, so I will not deny them fish a chance to eat a farewell dish; it is a kind deed when I pull 'em from the crick with stomachs full.

Besides, there is no better way to spend a quiet summer day than sitting down beside a stream where I can close my eyes and dream about the things I plan to do when all my working days are through. I can relax completely here without a care and not a fear, and there are fish enough to take my bait to keep me half awake.

Yes sir, this time of year is best for catching up upon my rest; much of the summer work is done, what there is left don't fret me none 'cause while beside the crick I sit, Mirandy will take care of it.

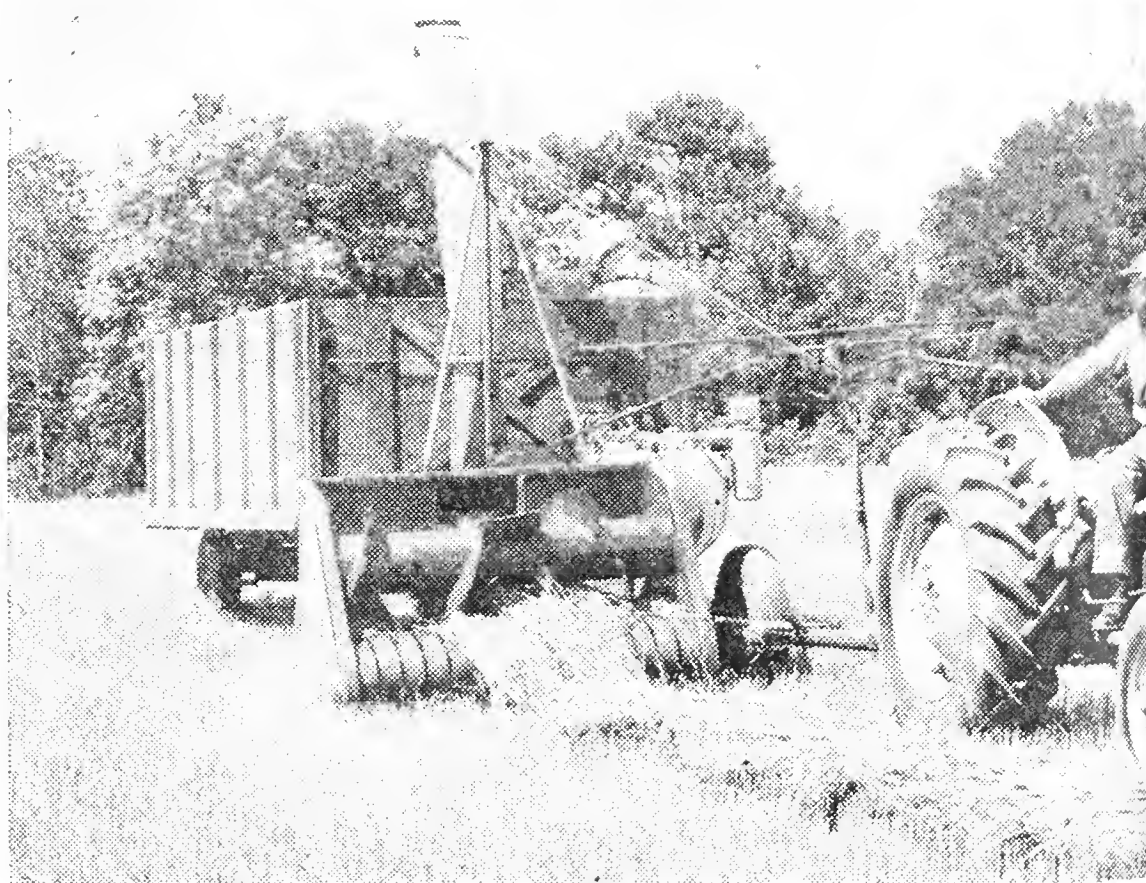


Ford forage harvester with cutterbar

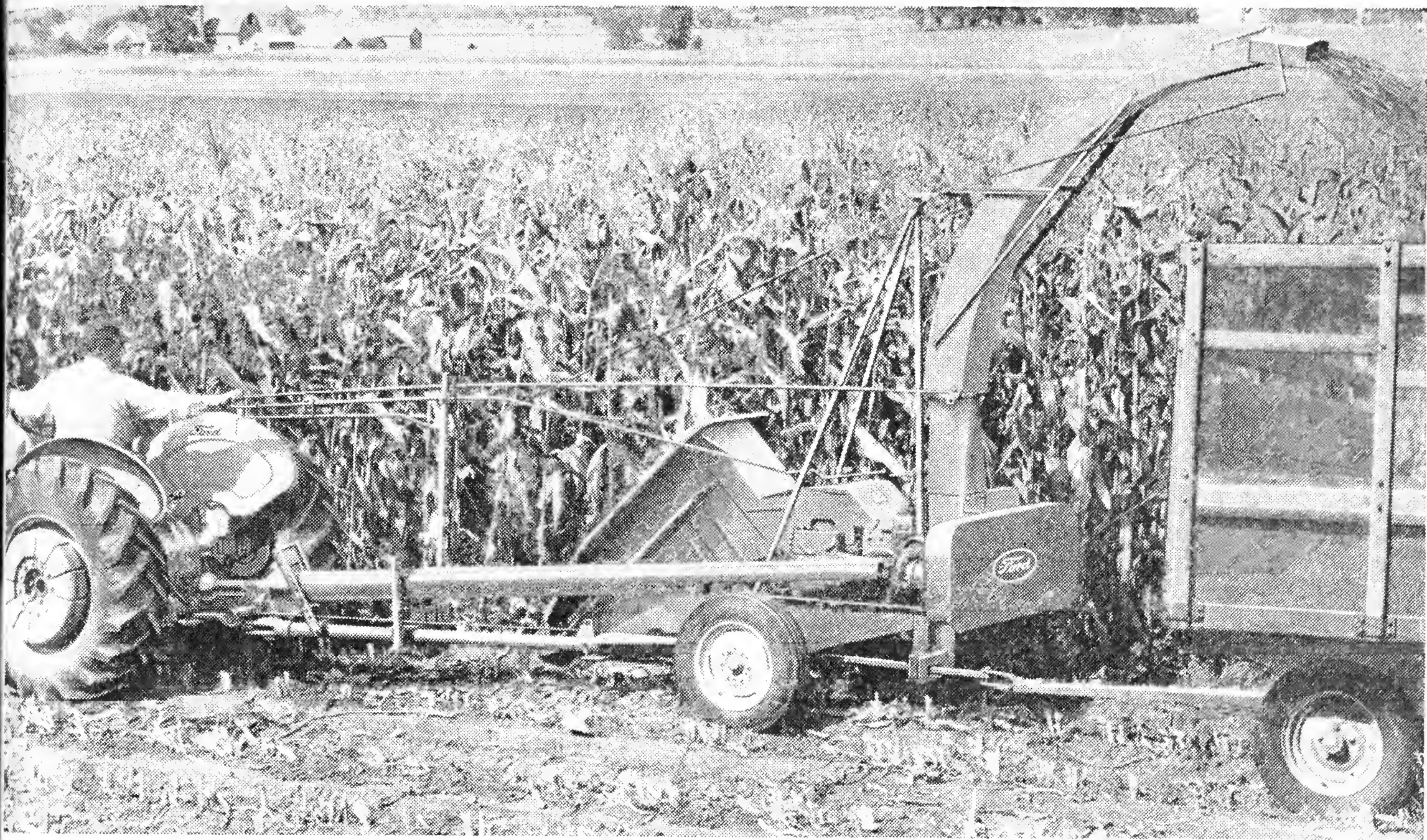


HANDY PICK-UP-AND-GO BLOWER

Ford grain and forage blower—Up to 40 tons per hour capacity moves grain and forage into storage fast. No need for loads to wait. Available with hopper or fast rubberized belt conveyor. Conveyor, cross-feed auger and big 40-inch six-blade fan all have sealed-for-life bearings. Easy transport with 3-point hitch. Direct PTO drive, no anchoring needed. See it soon!



Ford forage harvester with windrow pick-up



*Fords cost less than any other make! Based on manufacturer's suggested retail prices known in January, 1963, for comparable forage harvesters with row crop attachment

TRADES COST LESS on Ford forage harvesters

Priced for Big Savings . . . best chopper buy for 1963! Suggested list price is actually *lower than any other chopper in its class*. Not just a couple of bucks lower . . . not a mere \$50 lower . . . not \$100 lower, but as much as several hundred dollars **LOWER*** than other makes of comparable type and capacity! Yes, this is the year to trade for a big, rugged Ford forage harvester. You'll come out of the deal with the kind of trade a farmer dreams of.

High Capacity—The first thing to look for in a chopper . . . and the first thing Ford owners talk about. Ford 40-tons-per-hour harvesters will chop as fast as you can put it into the silo. Yes, and that's even at the short cut for best corn silage! This forage harvester will keep your wagons and blower going at top capacity. But there's more . . .

Less Power Needed—Gets more done in good weather . . . gets the job done in bad weather, too. Because they're compact, lightweight and close-coupled, Fords are easy to pull—easy to handle.

Even Feed—Forage travels a short distance to cutter . . . another reason why you need less power!

Built-in Sharpener—Now it's easy to keep the knives sharp and save more power. Spiral knives cut uniform $\frac{3}{8}$ - to 4-inch lengths.

Big, Separate Blower—Four-blade 30-inch blower moves forage to the load through a 9-inch delivery pipe as fast as you can chop. It has separate drive from cutter and a secondary air intake helps keep crop moving for fast loading.

Quick-Change Attachments—Whether you want to chop dry hay, cut direct, or chop row crops, you can drive right in, hook up in a jiffy.

Handy Controls—Swivel the discharge spout for side or rear delivery. Adjusting and lifting controls are within easy reach of the operator . . . right from the tractor seat.

Save more with a Ford forage harvester . . . try one on your farm . . . see for yourself! Ask about variable credit terms, too!

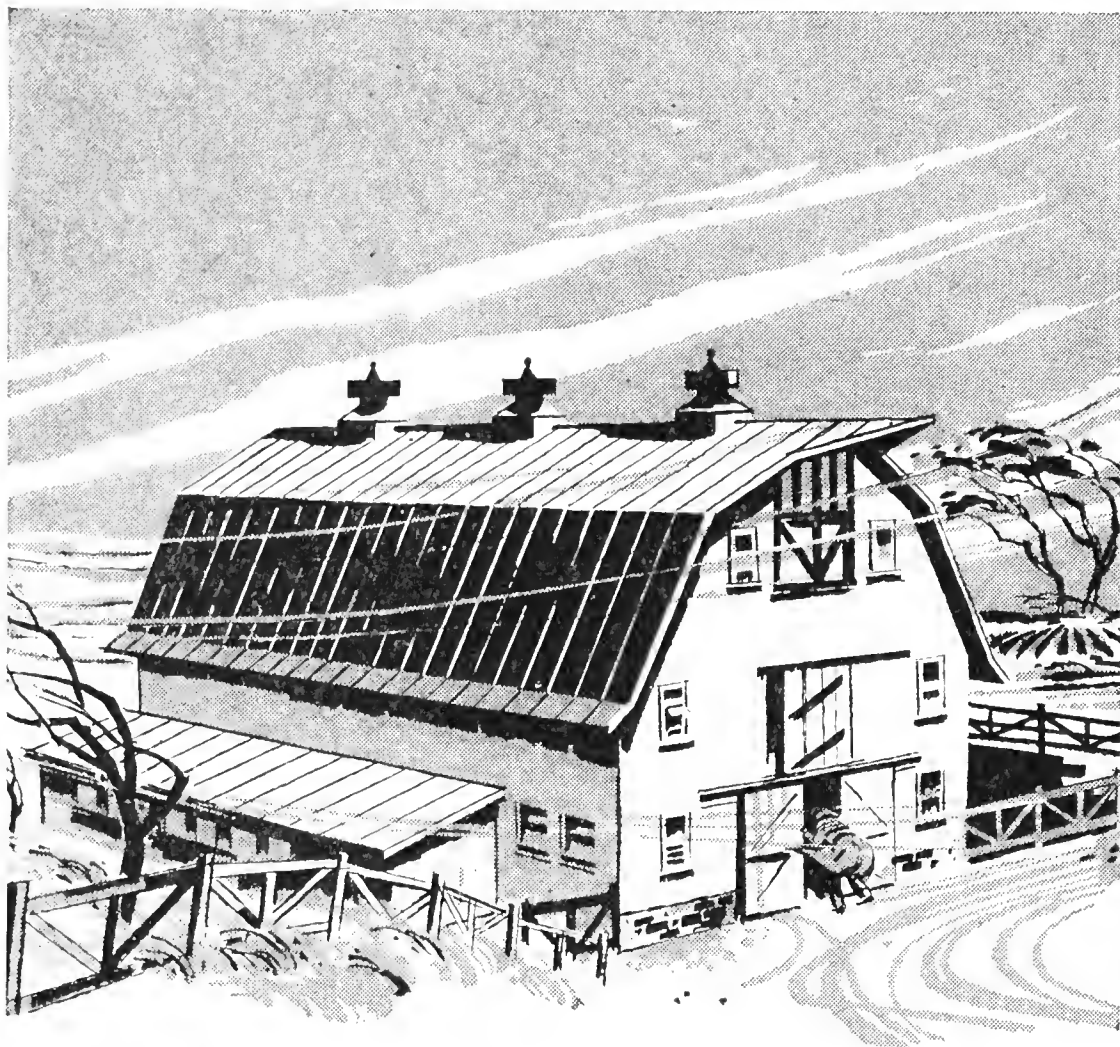
PRODUCTS OF  MOTOR COMPANY

SEE YOUR NEARBY FORD TRACTOR AND IMPLEMENT DEALER

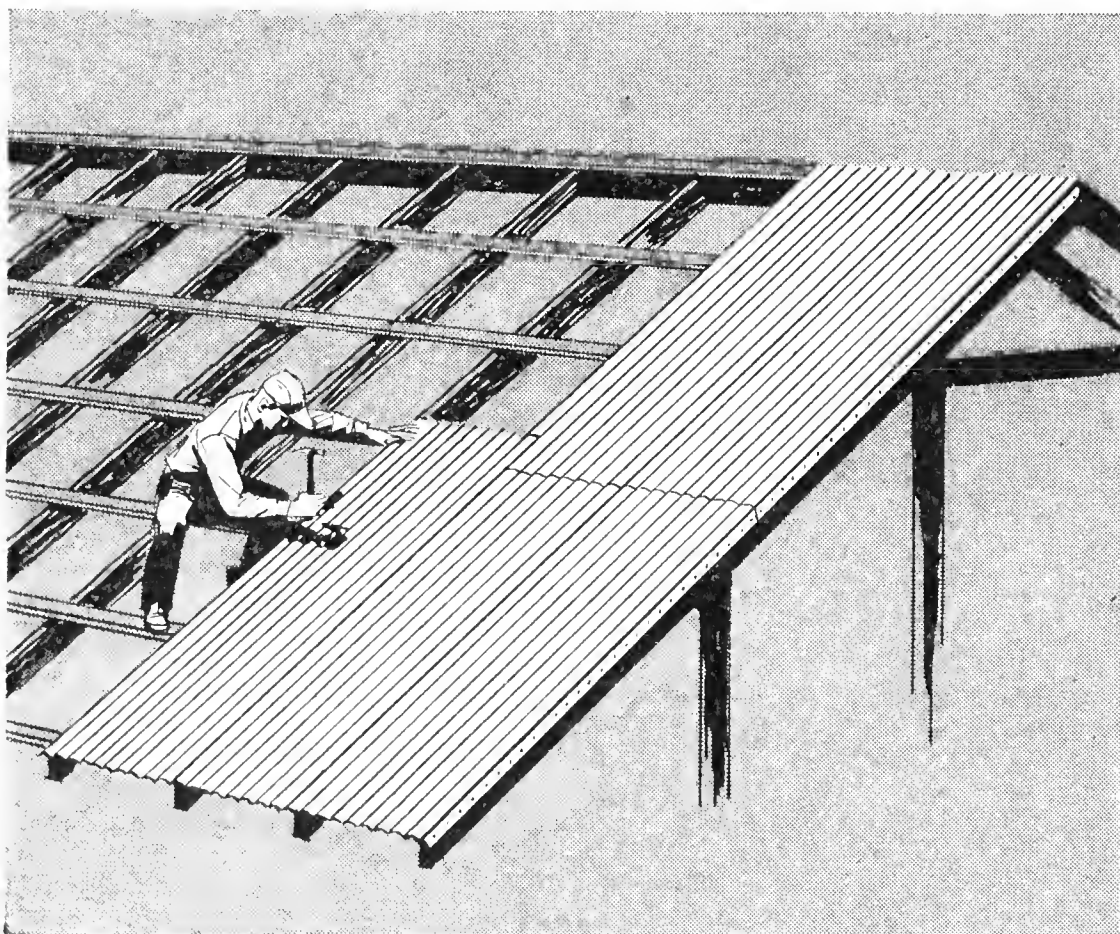
FORD

FOR BIGGER CHOPPER SAVINGS

What roofing is strong as steel?



As economical to install as steel?



As low in price as steel?

Answer:

**BETHLEHEM GALVANIZED
STEEL ROOFING**

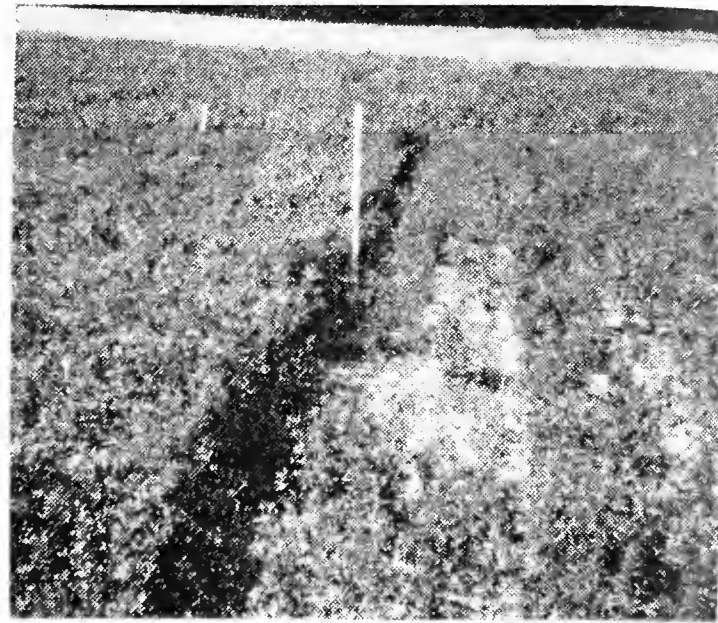
**Galvanized for long, long life*



Steel for Strength



When seeded, the strip of alfalfa on the left was firmed with a press wheel attachment; the strip on right was not firmed.



Firming of soil with press wheels like these gives top germination of summer seedings.

Are You Seeding In August?

By Walt Griffith*

IF YOU'RE thinking of making a seeding in August, remember that firming the soil after seeding—with a cultipacker or with press wheels—increases your chances of success.

The alfalfa in the picture above was band seeded with a grain drill in August 1962 at Geneva. The fertilizer was drilled in and the forage seed hoses were set to drop the alfalfa seeds about one foot behind the disks directly over the fertilizer band. The strip on the left was firmed with a press wheel attachment on the grain drill; the strip on the right was not firmed after seeding.

Records from the weather station maintained in the same field by the Department of Vegetable Crops of the New York State Agricultural Experiment Station at Geneva show only 0.84 inches of rainfall for the period August 11 to September 10, 1962. Under these dry conditions, firming the soil greatly improved the early germination and growth of the alfalfa seedlings. On the other hand, in August 1961, when 1.94 inches of rainfall was measured during the August 11 to September 10 period, firming after seeding made only a slight difference in alfalfa establishment.

Firming the soil after seeding helps to insure proper seed coverage ($\frac{1}{4}$ to $\frac{1}{2}$ inch depth), and also conserves soil moisture. If the tillage operations have left the soil very loose, cultipacking before seeding helps to provide a moderately firm seedbed for accurate seed and fertilizer placement. The germination of surface-seeded legumes and grasses may be delayed if the soil is dry, or the seeds may germinate and then die if the soil dries out.

*Agronomy Department, Cornell University

Research from Michigan also shows that alfalfa planted with a cultipacker seeder or band-seeded with a grain drill without firming after seeding produced thinner and weaker stands than did alfalfa that was band-seeded followed by either cultipacking or press wheels. Large differences between methods in size of plants were due to much greater early emergence after soil firming. These plants quickly developed strong root systems and used the banded fertilizer. Without soil firming, germination and emergence of most of the seeds was delayed until after the rains in September.

The grain drill equipped with band seeder and press wheels combines favorable seed depth, fertilizer placement and firming after seeding in one simple farm machine. The grain drill places the fertilizer in bands where it is quickly reached by the band-seeded forages; the press wheels provide slight soil coverage for the seeds as well as firming the soil. On stony soils, or if press wheels are not available, firming immediately after seeding with a cultipacker is a good practice.

Other good seeding practices such as proper inoculation, careful seedbed preparation, adequate soil pH level, and fertilization all help to increase the chances for productive hay crops next year from August seedings.

FORAGE POINTERS

Dr. Griffith and fellow agronomist Dr. Ralph Krenzin will offer a demonstration daily in the Farm Machinery Building at the New York State Exposition August 27-September 2.

**YOUR GLF
CONSUMER
PRODUCTS
REPORT**



why GLF Weatheramic #251 stays white and fresh for about seven years



**We go 4,080 miles to Normandy to gather pebbles
that make GLF *Unico* paints last two years longer**

From the quiet beaches of Normandy on the northwestern coast of France, eight tons of smooth, egg-shaped flint pebbles have been harvested to help us mix paint.

These tough little pebbles are the best known agent today for grinding of white paint. Their task... to grind, mix and blend dry pigments with oils and two types of chalking compound into an extraordinary paint that chalks slowly.

This is not ordinary paint.

Most white paints are made to chalk fast because they are sold to people who live in large cities and must use a paint that will clean itself rapidly in an atmosphere of soot, dirt and fumes. These paints contain the usual one chalking pigment.

Our Weatheramic #251 white paint with two chalking pigments is made to clean-up slowly (yet fast enough to stay bright) because we make it for country or small city homes, where the air is relatively clean. And the slower the chalking, the longer the wear.

One coat of Weatheramic #251 will give your home a fresh, clean look for about two years longer than most white paints. Of course, we have Weatheramic paints in colors and Barn Red, too.

Slow chalking Weatheramic #251 saves you work, time, trouble... and money—from the original cost on through the extra years your home doesn't need repainting. Save money, too, on our full line of painting accessories for small or

large jobs.

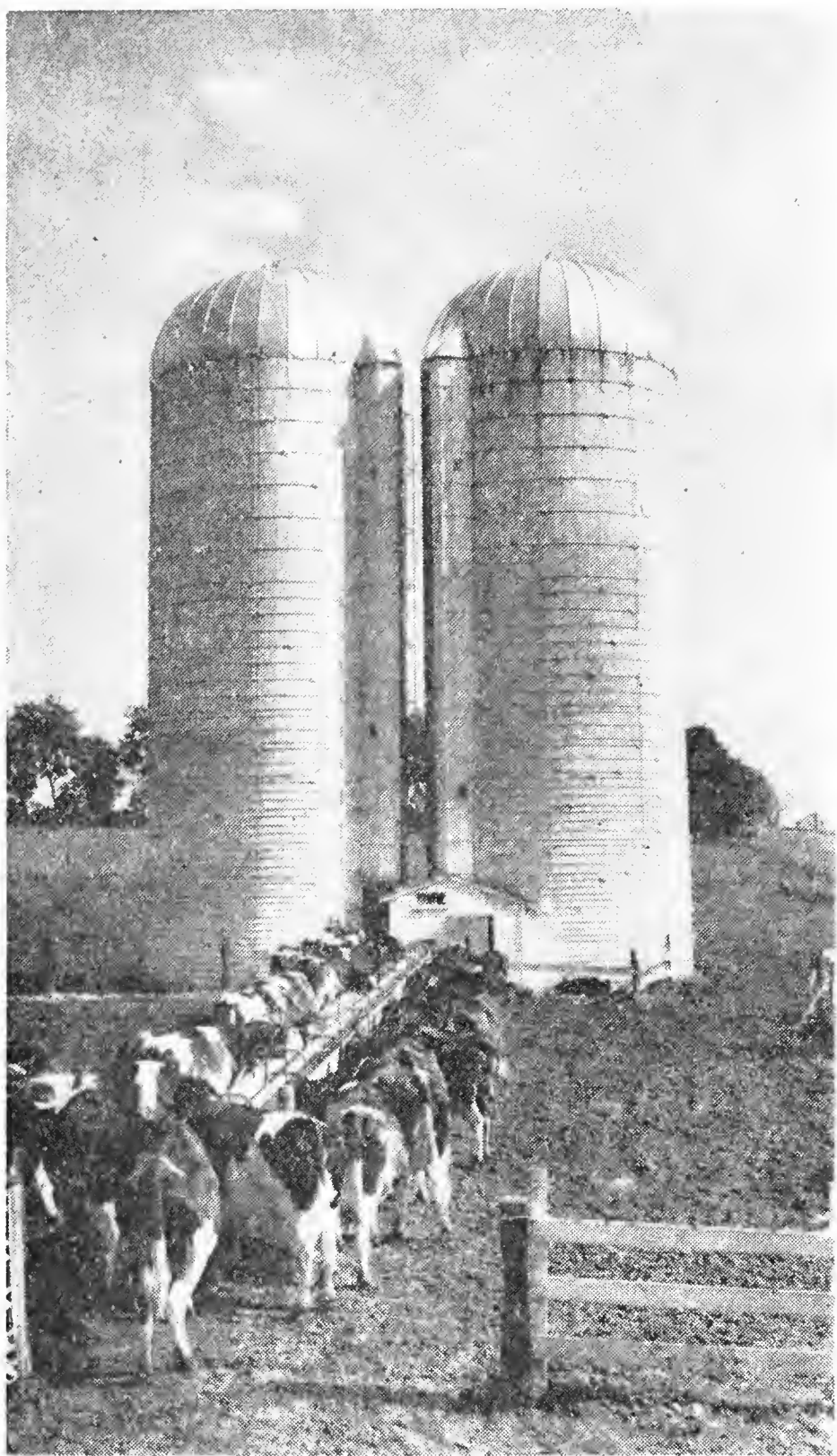
You can't tell white paint just by its color. Ask for Weatheramic #251 at your nearby GLF. It's the special paint that likes to stay around your home for years and years and years.

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QUALITY CONSUMER PRODUCTS



These two 20' x 50' silos provide part of the roughage for the Wilbur herd during winter and summer. Self-unloading wagons and a silo unloader in each silo automates the job of materials handling.

VERTICAL PASTURE

By GORDON CONKLIN

BROTHERS Sprague and Joseph Wilbur, Greenwich, Washington County, New York, have an average of about 115 milking cows, but not much pasture. The herd is split into two groups—one on an exercise lot and the other on 25 acres of pasture. Speaking of the group on pasture, Sprague says, "They don't care whether they eat pasture or not; they stay near the barn most of the time."

And well they might—why work to rustle up some grub when it is brought to you? Cows have all the hay and silage they want at the barn the year around—as much as 60 to 65 pounds of silage per cow per day in winter.

Corn silage is fed to stanchioned cows once a day in the winter; they also get some silage again in the outside feeding area once a day. In the summer, cows don't go in the barn at all except to go through the milking parlor, so all silage and hay is fed outside. In addition to the two towering 20' x 50' silos that sup-

ply the outside feed bunk, there are two 16' x 40's at the main barn. In addition, there are two 16' x 30' tubs and one 14' x 30' at another barn where young cattle and dry cows are kept.

It takes a lot of corn to fill all these silos (no other material is ensiled); the Wilburs planted 106 acres of corn in 1963. A farm management survey record taken on the farm by enumerators from the New York State College of Agriculture shows a yield of 18 tons of corn silage per acre in the 1961 crop year. The Wilburs like to ensile well-matured corn, and want it not knee-high but hip-high by the Fourth of July; they started planting on May 6 this year. Oats began rattling down the hoes on April 6, and the grain heads were coming out of the boot on June 18.

How do they plant so early? A large part of it is good management, of course — having equipment and supplies ready to go when the countdown comes. A contributing factor, though, is the nature of the soils on this farm. Some are what agronomists call "heavy lake-laid clays," but the rest are sandy loams that dry out early in the spring and drain quickly after rains.

Most of the corn is grown on the sands, and hay is concentrated on the clay soils, al-

though every year brings exceptions to this general rule in order to maintain some crop rotation. Hay on the clays is a week to ten days later in maturity and this gives a desirable spread in best haying time. Seeding mixtures include Narragansett alfalfa, birdsfoot trefoil, and Climax timothy on the clays — Narragansett, Climax and a little ladino clover on the sands.

The sandy loams can be very disappointing soils unless properly handled, but the Wilburs have found the key to unlocking their productivity. It takes an initial four tons of lime per acre to sweeten up these fields, plus periodical shots of smaller amounts for maintaining desirable pH levels. Lime is applied ahead of corn so it will be well mixed through the furrow slice by the time seedings are made with oats.

Corn land gets a heavy application of man-

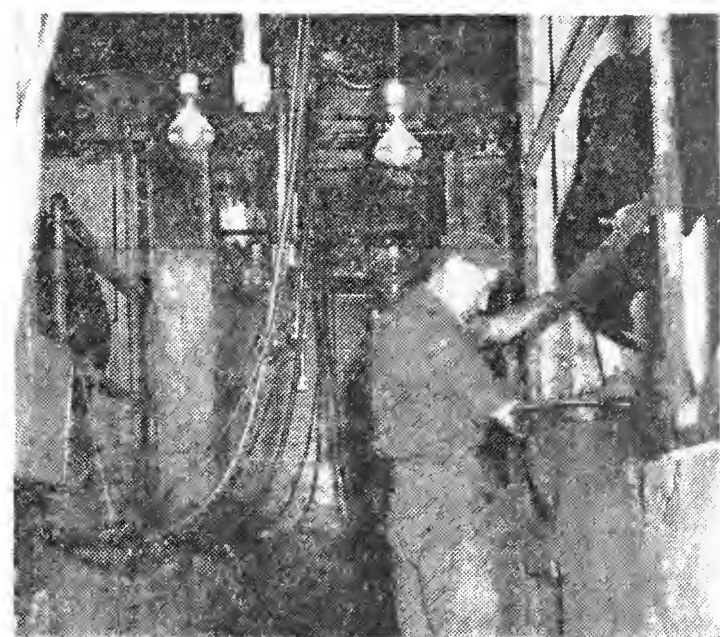
ure to which superphosphate has been added, then 400 pounds of 12-12-12 per acre goes on at planting time. Usually corn follows corn for at least two years, sometimes three. In some cases, an early crop of hay is taken off and then the field is plowed and planted to corn. Plant populations are in the range of 23,000 to 24,000 per acre in rows 36 inches apart.

At silo filling time, it's fortunate that the Wilburs' sandy soils are near the barns. With plenty of tractor power and two self-unloading wagons, the chopper rips down corn in jig time—five to six loads an hour are hustled to the silo. They have filled one of the 20' x 50's in three days. The hard dent stage is preferred by Sprague and Joe; no juice runs out of the silos.

"We can harvest more TDN per acre with corn than with hay," the brothers agree. "Harvesting is no problem even when it's wet, and there just isn't any hand labor included with either putting it in or taking it out of the silo." Four silo unloaders—one in each of the three larger silos at the main barn, and one switched between the silos at the other barn—offer push-button feeding.

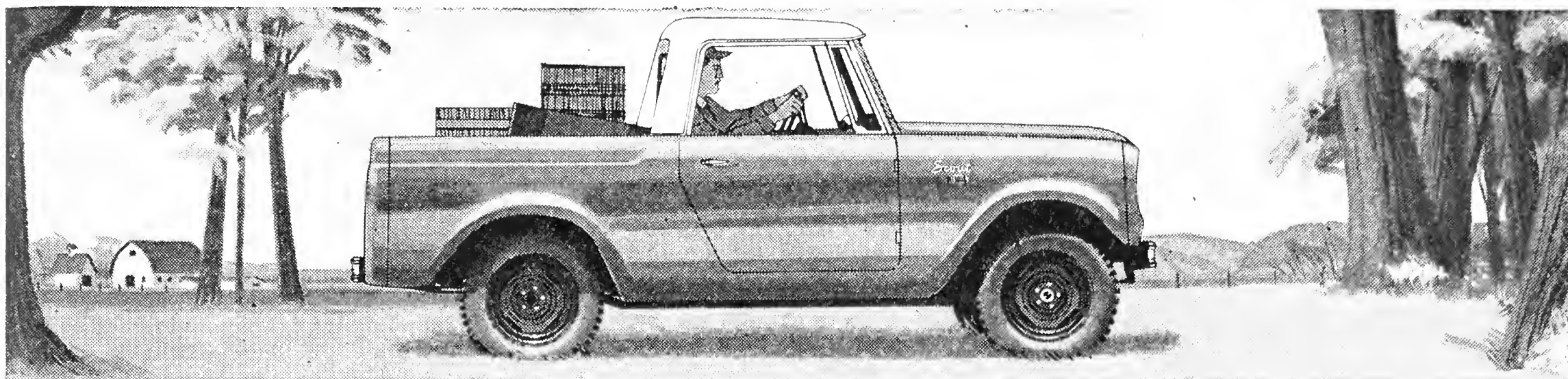
This 715 acre farm, big as it is, included only 96 acres in 1935 when the Wilbur brothers joined their father, Joseph D. Wilbur, in its operation. Many a change has been made in farm methods on Wilburholm Farms since then; heavy reliance on stored feeding of roughages all year is a big one. Proof that it gets results is the 13,188 pounds of milk sold per cow during the year ended April 30, 1962. Over that same period, the men on this farm turned in a figure of 448,000 pounds of milk sold per man.

It looks as though cows will more and more be "bolted down" as are hens, with feed being brought to them and milk piped away. The experience of the Wilburs, and many of their neighbors, points toward greater use of "vertical pasture."

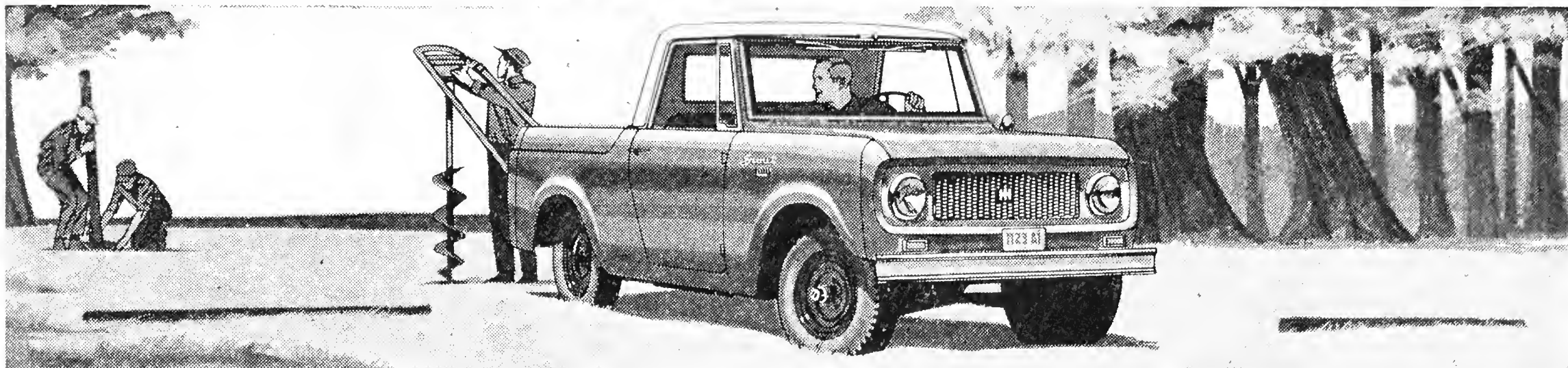


That's Joe Wilbur priming a cow for milking. Sprague's son Don operates the baler below.

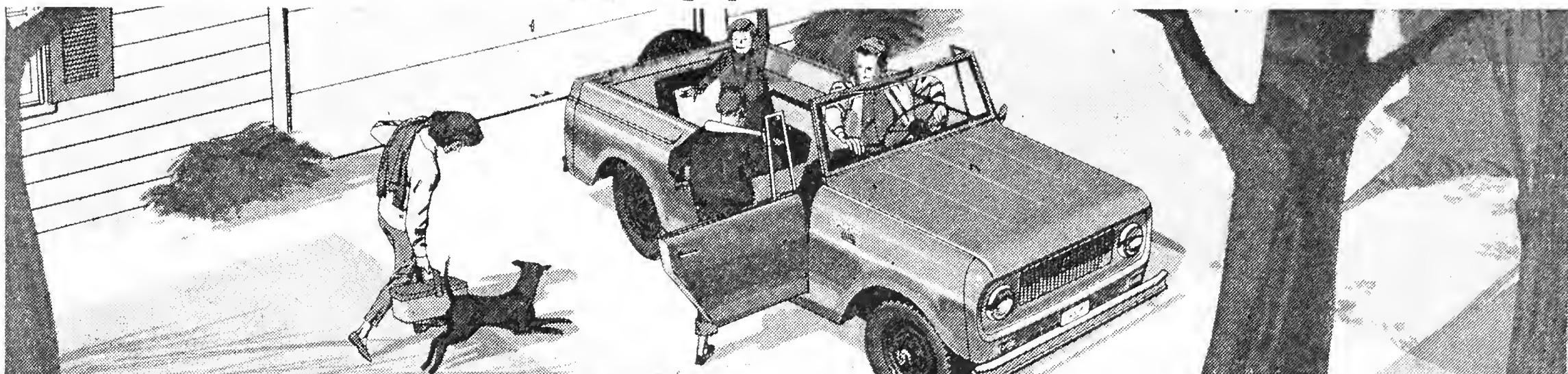




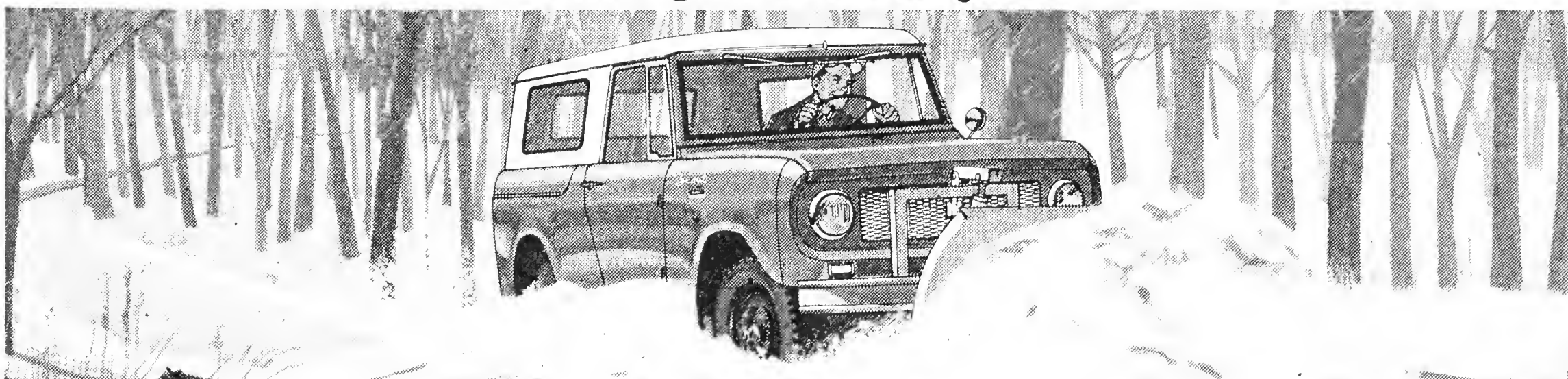
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"The Best Way to Get Things Done"

Dairyman Gordon Wood, R.D. 2, Mansfield, Pa., shown here with his family (l. to r.) Tim, Ted, Mr. Wood, Bob, Mrs. Wood, and Ronald, says: "When we dairymen face problems, I'm thankful I belong to a local milk cooperative like our Tioga Valley Bulk Cooperative, and that it works with about 80 other co-ops, both bargaining and operating, in the Bargaining Agency under the cooperative principle of 'one man-one vote'. In the Agency, dairymen set policy through their delegates, and get things done for all dairymen. In good years and bad, the cooperative Agency way is the best way for me and my family."



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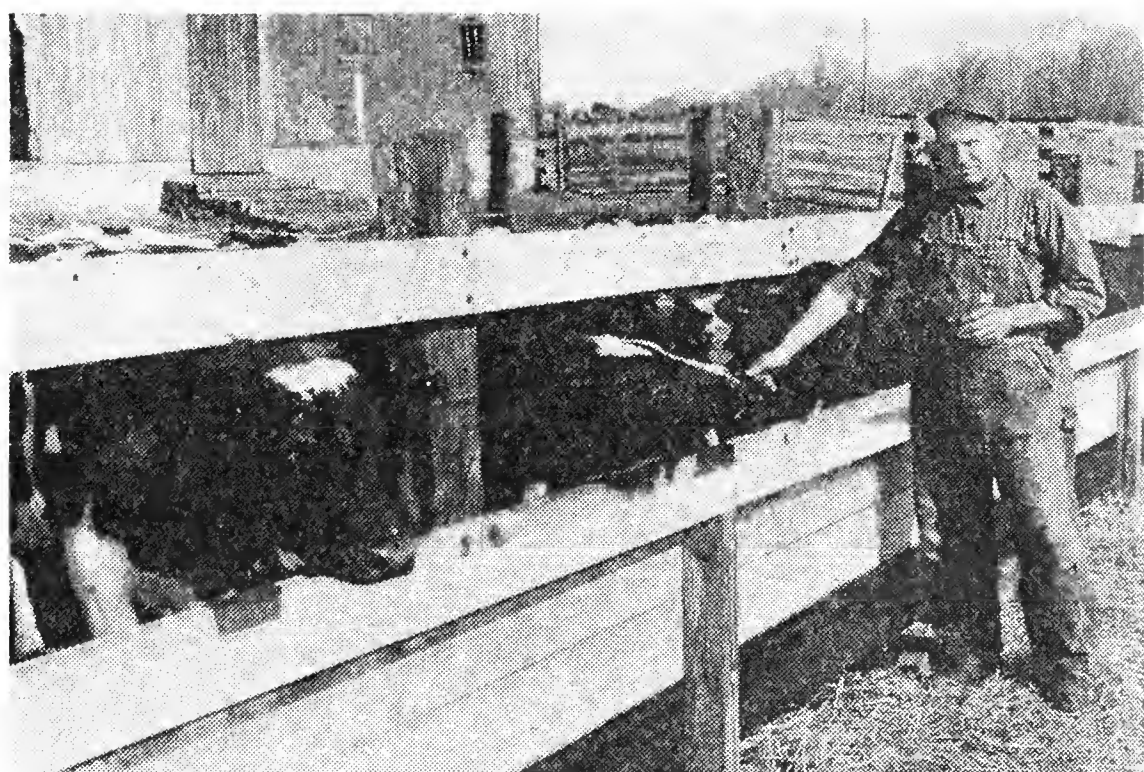
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Clair Taylor of Pavilion with some of his own bull calves that he is raising for meat as an experiment—and as an additional source of income. Having available space and roughage decided him to make the experiment, so for two years he has been bringing the bull calves along to the weight of 1,200 to 1,400 desired by buyers. Raising his own calves cuts his cash investment to a bare minimum.

Raises Bulls for Beef

By HUGH COSLINE

FACED with the desire for an additional source of income, but feeling that the present status of the dairy industry did not warrant more dairy cows, Clair Taylor of Pavilion, in Wyoming County, New York, figured out a plan which seemed to meet his needs. For going on two years he has raised all his bull calves to sell for meat—presumably for hamburgers and hot dogs!

"I am not recommending this to anyone else," Clair said. "In fact, if it doesn't work out I may be out of this enterprise in another year, but here's the way I figured it. I had the roughage, the barn room, and some time. I considered buying feeder calves, but by raising my own Holstein bull calves I cut the cash investment to a bare minimum.

"I read that a midwestern experiment station found that bull calves gain faster than steers, and besides that, I feel that there is a possibility of selling some bulls to dairymen to run with first calf heifers in cases where they don't plan to raise calves. We have a good herd, but they are grades, not purebreds."

Clair has a herd of 50 milkers, and follows the zero pasture method of feeding roughage. The bulls have a barn basement to run in, with an exercise yard and a bunk feeder along the fence.

"I figure I have a better chance to make some money than the man who buys feeders," says Clair, "particularly when feeder prices are high—and in addition I have no purchase commission to pay as I would have with feeders.

"Of course, I have to figure that a 100 pound bob calf is worth about \$25.00.

"Actually," he continued, "I haven't sold any bulls for meat yet. The oldest I have was born November, 1961, and buyers tell me they want the bulls to weigh 1,200 to 1,400 pounds. The oldest ones I have now weigh about 1,100, so they will be ready for market before long.

"The bulls are fed this way: they get about 4 pounds of grain once a day; in the summer time they get greenchop fed in the bunk, in the winter time silage, and what hay they can eat—but an attempt is

made to give them the poorer hay and save the better for the dairy herd."

After talking with Clair (in mid-May) I could see clearly why he had reached his decision. It seemed to make sense—and it will certainly be interesting to see how his plan works out.

CAUSE OF INFERTILITY

GENETICISTS at the University of Wisconsin who have been studying breeding failures in cows have come up with the idea that some cows develop antibodies which may block fertilization or embryonic growth.

The actual reason is still a mystery, but it is known that cows can produce antibodies which prevent disease organisms from entering their body cells.

In several experiments at Wisconsin, bull semen was injected into a cow's bloodstream. After the cow had time to produce antibodies against the semen, they took some blood serum from her. This was added to bull sperm, and the mixture used to inseminate six heifers, only one of which conceived—and in her case the embryo was deteriorating after about three months of pregnancy.

The conclusion was that the injected cow had produced antibodies against the sperm, and that these antibodies had interfered with the normal process of fertilization and pregnancy. The usual tests for detecting antibodies in blood don't seem sensitive enough to detect "infertility" antibodies; but a new technique has shown them to be present in some serum samples from injected cows.

Maybe any cow serum mixed with semen would cause such results; but in control experiments with two heifers inseminated with semen mixed with serum from cows that had not been injected with semen, both of the heifers became pregnant.

There's still a lot to learn about how this type of immunization takes place, and how it exerts its effect, but the researchers may be on the way to a "breakthrough."

It's New

Contracts — The University of New Hampshire has an Extension circular, No. 342, entitled "Sample Contracts for Raising Dairy Herd Replacements." The publication contains "tearout" sample contracts, and a new section on minimum standards as a guide. For your copy, write to University of New Hampshire, Mail Service, Durham, New Hampshire.

Irrigation Test — The refractometer which has been used commercially for testing the sugar content of beets, sugar cane, fruit juices, jams and jellies, is now being found useful to determine whether or not field crops need irrigation.

Heretofore that decision has been made on the appearance of the soil. A more accurate clue is plant sugar content found by taking leaves and submitting them to the test of the refractometer.

The hand-model refractometer looks like a small telescope. Across a graduated scale on the instrument is a sharp line dividing a dark area from a light one, and at that point one can read the percentage of total cell sap concentration in the plant juice.

All-Concentrate Rations — Recently, interest in large-scale mechanized feeding operations, rapid expansion of human population, and the necessity of obtaining maximum nutrient yield per acre of available land, have focused attention of the College research people on the feeding of all-concentrate rations to beef

cattle. Research has progressed to the point that there is now little doubt that cattle can be finished successfully on all-concentrate rations—but there are still many problems to be solved. It is expected that, given time, all-concentrate feeding of beef cattle will take its place along with other cattle feeding systems, with economics determining the extent of use.

New Tomato Variety — A new variety of tomato developed by the H. J. Heinz Company (but still unnamed) stands high in yield, size, color, and resistance to fusarium and verticillium wilt. It is being marketed by major seed suppliers for the first time in 1963.

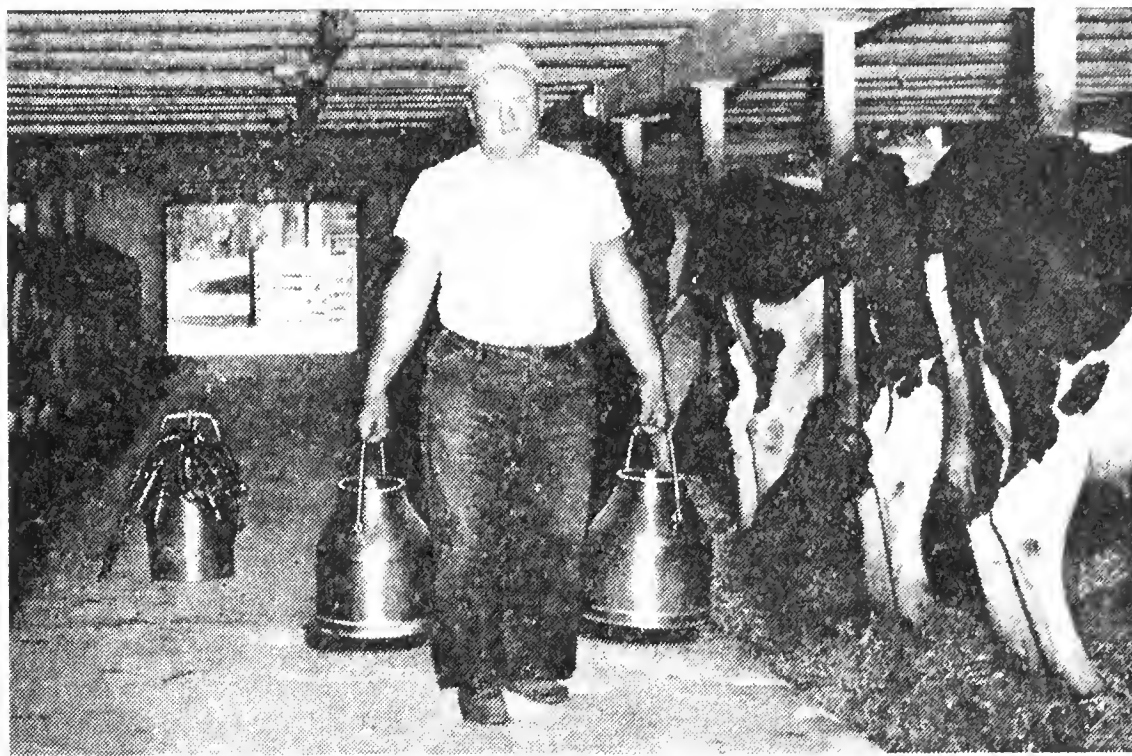
No Wires! — The transmission of electric power without wires to every part of rural America is more than an engineer's pipe dream. Says N.

Kent Ellis, assistant director of the Purdue University Agricultural Experiment Station at Lafayette, Indiana, "When a breakthrough in transmission and/or production of electricity comes—and it is bound to come—applications of this power to agriculture or to rural areas will find no bounds."

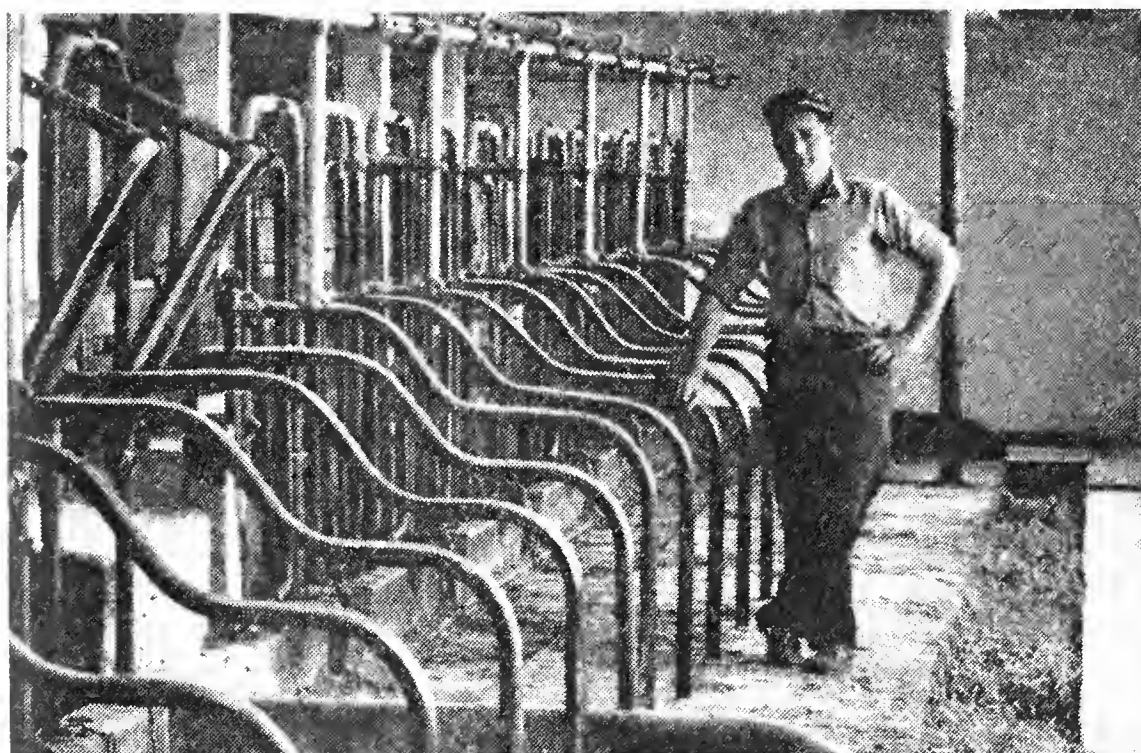
Mr. Ellis feels that this "breakthrough" will involve redesigning machinery to apply energy to field work. Among other things he envisions forage harvested and packaged in one operation and grain dried in the field; some soil and plant diseases controlled with electrical energy; a controlled source of industrial raw material available for agricultural products through rearrangement of the molecular structure of starches, lignins and other components of plants.



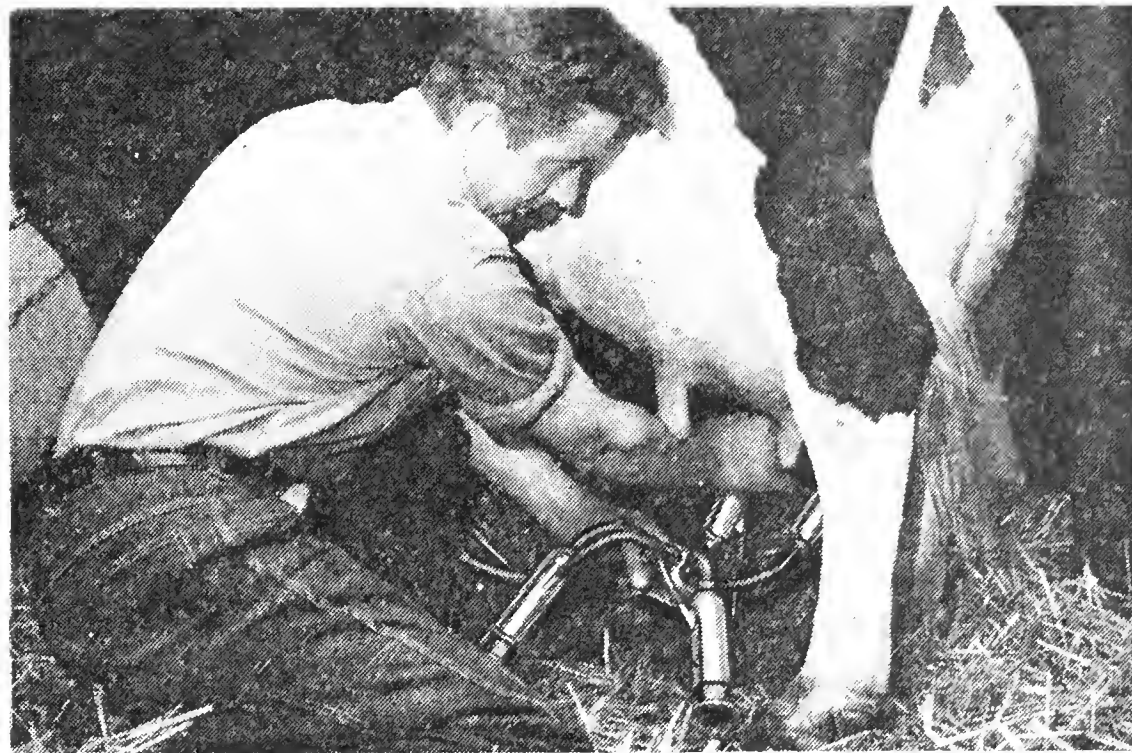
Vincent Weidman, Oxford, New York



Harold W. Bodder, Perkasio, Pennsylvania



Daniel J. Harnish, Richland, Pennsylvania



Antonie Ooms, Old Chatham, New York

We're milking 30-60 minutes faster

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Read how these Pennsylvania and New York dairymen milk 30-60 minutes faster, get better teat and udder health, with the new fast-milking DeLaval.

"My brother and I milk 88 cows, using four of the new DeLaval units. We finish 30-45 minutes earlier than we did with the six units we used before. One result of this has been an improvement in teat and udder health. We have less mastitis," says Antonie Ooms of Old Chatham, New York.

"We're milking 52 cows with the new DeLaval and doing it 30 minutes faster than when we

milks only 46 cows with the other units. Daily production is up from 44½ to 49 pounds per cow and I believe that's because we're milking faster with the new units," says Harold W. Bodder of Perkasio, Pennsylvania.

"Since we put in our new DeLaval Combine," says Vincent Weidman of Oxford, New York, "we're milking 47 cows one hour faster."

*Reg. trademark of The De Laval Separator Co.



And we're getting about four pounds more milk per cow per day. Udder health is better, too."

"For me, the real benefit of faster milking is healthier udders," says Daniel J. Harnish, Richland, Pennsylvania. "I believe our new DeLaval Combine Milker⁺ has improved the condition of teats and udders. I see less money going out for drug and vet expenses."

Find out how much faster you can milk with the new fast-milking DeLaval, and how this can improve udder health. Ask your dealer. Only 10% down, up to 4 years to pay. The DeLaval Separator Co., Poughkeepsie, N. Y.

When PAINT Hits The Roof!

THE LIFE of roofs on various farm buildings can be extended almost indefinitely by a regular program of painting and repairs, says the National Paint, Varnish and Lacquer Association. And it is possible to reduce interior temperatures by as much as 15 or more degrees during the summer by painting black roofs white.

Research has shown that when heat builds up too high in farm buildings, the rate of weight increase of cattle and the production of milk and eggs drop rapidly — while the feed required per pound of production increases in proportion. Painting roofs white reflects the solar heat, and reduces the rise in temperature; aluminum roof paints achieve the same result, but to a lesser degree. Conditions for grain storage are improved by such painting, and the loss of gasoline in above-ground tanks is also reduced.

Buy Quality

It's a waste of time, money and effort to buy anything but a quality paint, made by a reputable manufacturer. Check with your friends and neighbors who have had successful roof recoating jobs to learn what brands they have used; avoid roofing paints priced so low that the price sounds too good to be true.

Most familiar and longest on the market are asphalt roof coatings, or paints that contain asbestos or other mineral fibers for durability and sag resistance. A thinner version made without the fibers is used mostly as a primer, particularly

over dried-out roofing. These can be applied to **any** roofing material except wood.

Newer are the aluminum roof paints which come in a variety of pastel colors, and in the natural silvery color. Some aluminum roof paints are asphalt-based, others are alkyd-based, and there is a third type that uses a synthetic rubber resin as a base. All three types come with and without asbestos fibers, although the alkyd and synthetic types nearly always contain this mineral.

Still a third type of roof paint is exterior latex paint, usually used only in white for heat reflection; there is an additional type of roof paint meant expressly for metal roofs other than galvanized steel, which contains a rust inhibitive pigment.

A product essential for any program of roof maintenance is fibered roof cement to patch small gaps in old roofing, and to seal the edges of larger patches made from roofing material. Roof cement is also used to close seams and to seal the edges of metal flashing.

Steps to Take

The first step in refinishing a roof is to see that it is clean and free from dirt, dust, and loose or foreign matter; if the roof is covered with gravel or a similar material, all loose gravel should be swept away. Examine the surface for breaks or tears. Minor cracks and small holes should be filled with

the fibered asphalt roof coating. Any loose spots should be nailed down with roofing nails, which generally come equipped with a waterproof washer that keeps rain from entering the nail holes. Major tears or breaks should be covered by roofing felt, heavy aluminum foil, composition roofing, metal or other material. Spread roofing cement on the area to be covered, place the patch over the opening, and nail the edges down with roofing nails.

Now check the flashing around chimneys and vent pipes and in the valleys between gables; be sure the edges are sealed with roofing cement to prevent water from entering.

Metal roofs should be checked for breaks and rust. The breaks can usually be sealed off with roofing cement; rust should be removed with steel wool. Asphalt and asbestos cement shingles can also be coated with the roof paints, any missing units replaced, and loose ones cemented into place. Where old roll roofing is extremely dried out from long exposure, it is advisable to prime it with non-fibered asphalt roof paint that will re-saturate the felt or composition.

Application

Both fibered and non-fibered asphalt and aluminum-asphalt roof coatings can be applied with long-handled roof brushes that make it unnecessary to stoop and bend while painting; for a quicker job the unfibered types can also be applied with long-handled rollers. Some paints can be sprayed. Check the label on the can.

The chief advantage of asphalt aluminum roof paints over the con-

ventional asphalt roof coatings is that the aluminum dries into a metallic layer over the asphalt; it is claimed that this aluminum layer is also more weather-resistant, and keeps the asphalt beneath from drying out too quickly.

If the present asphalt roofing is in good condition and you want to paint it white to reduce interior temperatures, the paint to use is exterior latex paint. Oil paints are not satisfactory, because the solvent used for oil paints will damage the asphalt and cause it to bleed through the white.

Galvanized Metal

Galvanized metal roofing requires special treatment for successful painting. If possible, this material should be allowed to weather for six months before being painted. The most highly recommended primer for galvanized steel is zinc dust-zinc oxide paint. If this is not available, ask your dealer for a primer designed to go over galvanized steel, one rich in zinc chromate. After the primer has been allowed to dry for the period specified on the label, it can be finished either with a second coat of zinc dust-zinc oxide paint, or with any paint meant for exterior use.

Since one reason for painting galvanized metal is to prevent the build-up of under-roof heat, a white top coat is the best selection, one of the self-cleaning types. Asphalt coatings are not recommended for use over this material. For a one-coat job, apply a coat of white oil-vehicle portland cement paint over the unprimed metal. These have only a limited protective quality and must be renewed more often.

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And, you get an exclusive "Stone Stopper" safety clutch on the feed roll and gathering chains to protect the knives. Feed rolls can be reversed from tractor seat for easy cleanout of foreign objects.

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Dates to Remember

August 6-10 — York State Crafts Fair, Ithaca High School, Ithaca, N. Y.

Aug. 7 — Windham County Farmers' Field Day, River Bend Dairy Farm, Townshend, Vermont, on Route 30.

August 8 — Sugar beet field day. Agronomy Research Farm, Aurora, New York.

Aug. 8-10 — Addison County (Vermont) Farm and Home Field Days, Middlebury.

August 9-10 — Sixteenth Annual New York State Woodsmen's Field Days, Fairgrounds, Boonville, N. Y.

August 12-13 — Summer tour of the

New York State Horticultural Society, fruit areas of Pennsylvania.

August 13-14 — Delaware Dairy Tour, Agricultural Hall, University of Delaware.

Aug. 14-15 — Farm Equipment Show, including Farm Materials Handling Exhibit similar to 1962 events at Alfred and Cobleskill, Seligman Farm, Prattsburg, N. Y.

August 15 — Pennsylvania State Plowing Contest, Joseph Hooker Farm, Bernville.

August 15 — N. Y. State Agricultural Experiment Station's Open House, Geneva, N. Y.

Aug. 15-17 — Maine Products Show, Central Maine Youth Center Auditorium, Lewiston.

August 15-18 — 1963 Pageant of Steam, Canandaigua, New York.

Aug. 16-17 — Annual Lumberjack Roundup, Branbury State Park on Lake Dunmore, Vermont.

August 18-21 — Annual convention of the International Apple Association, Chase-Park Plaza Hotel, St. Louis, Mo.

Aug. 20-21 — Combined Stockholders Meeting, Farm Credit Banks, Ithaca, N. Y.

Aug. 22-24 — Ninth annual meeting of the Eastern Apicultural Society, Ontario Agricultural College, Guelph, Canada.

Aug. 23 — Maine Blueberry Festival, Union Fairgrounds, Augusta, Maine.

August 23-24 — NYABC cattle show, Ithaca, N. Y.

Aug. 24 — Litchfield County 4-H Fair, Litchfield, Conn. Special trib-

ute to "Frank Atwood."

August 25-28 — Annual North Atlantic Section Meeting of the American Society of Agricultural Engineers, University of Maine, Orono, Maine.

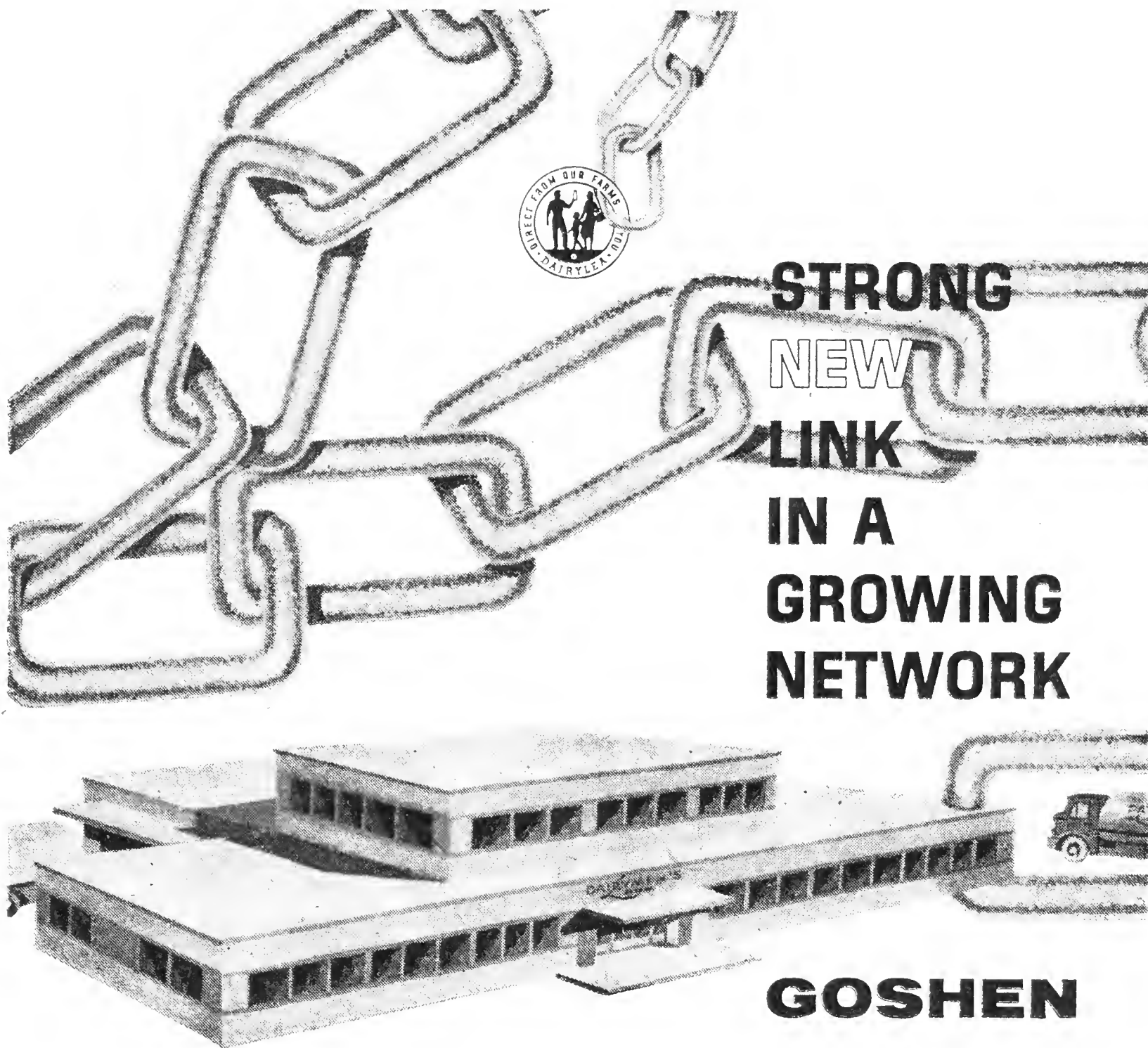
Aug. 27-Sept. 2 — New York State Fair, Syracuse, N. Y.

Sept. 6 — Forest Land Use Conference, Ten Eyck Hotel, Albany, N. Y. Registration forms from New York Forest Land Use Conference, 2 W. 45th St., New York 36, N. Y.

Sept. 6 — 14th annual New York "Meat Animal" Show and Sale, Empire Stockyards, Caledonia.

September 14-22 — Eastern States Exposition, West Springfield, Mass.

Sept. 19 — Pennsylvania Junior Dairy Show, Harrisburg.



This ultra-modern Dairymen's League bottling and distribution plant will rise soon at Goshen. Consumers in the fast-growing Central Hudson, Southeastern New York, and New Jersey suburban areas can now look forward to greater availability of Dairylea milk, excellent by tradition.

Goshen is the second big processing plant in eight years built and operated by the Dairymen's League to serve the New York metropolitan and suburban areas. It's another example of the way the League stays ahead.

A fully automatic system will be able to handle every day more than 250,000 quarts of milk supplied by League members. Top-efficiency, top-economy methods will enable this plant to process both fluid milk and a variety of other dairy products.

So add Goshen to the League list: twenty other dis-

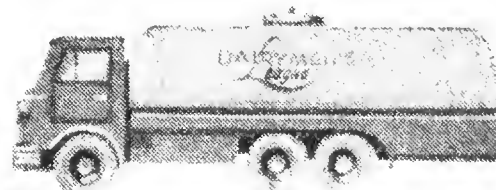
tribution branches, two large manufacturing plants, one cheese and four ice cream plants, and fifty country plants.

Here's solid strength for the dairy farmer—strength that comes from the security of knowing he has a guaranteed market for his farm milk. Membership in the full-scale co-op able to grow as the League is growing gives him that strength and that security.

Here's solid investment in another community which will benefit directly from dairymen's cooperative action in marketing their milk.

And here's solid assurance to consumers that they will increasingly be able to choose Dairylea—because their families deserve the finest . . . a guarantee made by our League members who market milk "direct from our farms to you."

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PERSONAL FARM EXPERIENCE

PASTURE PLUS

Our 46 milkers have been averaging more than 500 pounds fat since spring; our DHIC record for the year ending March, 1962, was 13,839 pounds milk and 503 pounds fat.

For the past several years (and this year when we had the grass) we have kept to the following program: the cows are put out to pasture around 9:00 a.m. and brought back to the yard (loose housing) around noon. In the yard there is always some shade, lots of water, and usually some hay and/or green

feed for the cows to pick over at leisure. In the evening, however, the cows are put out to grass immediately after milking so that they will have finished grazing before dark.

If the pasture is anywhere near decent, the cows will fill up in two hours or so, and with the extra feed in the yard they will have enough for the night—and this way they are close at hand for the morning milking. If the cows go heavy on the hay, it's an indication that pasture should be changed.

When we are filling the silo the

cows are fed in bunks, and they remain in the yard unless there is a surplus of pasture. And, except when filling silo, it takes about the same amount of time to put the cows out to pasture and bring them in as it does to chop a load of green feed for them. Unless the pasture is too far away, or it is too hot, the cows don't mind getting their own feed **provided you keep an eye on the pasture situation.**

We try to have the cows out to grass once a day, but will save the pasture for weekends so that, if possible, we will not have to green feed on Sundays. We have obtained best milk yields when the cows were on pasture once a day, and received green feed and hay for the rest of the day. The cows are always fed

grain according to production and body condition. — *Farm Manager, Mount Saviour Monastery, Elmira, N. Y.*

FEEDER PIGS

We have 20 sows now, plus 30 gilts. Generally we don't feed out the litters farrowed, but sell them at six to eight weeks of age as feeder pigs.

Needle teeth are clipped soon after farrowing; this year we started clipping both top and bottom. Iron shots are a necessity in our book to prevent anemia; I let a few go by just to check the point and was quickly convinced. Our last nine litters averaged eleven live pigs per litter.

Sows and gilts have access to a self feeder; I admit they get too big because of it. We always seem to be pressed for time and the labor-saving advantages of self feeding seem to outweigh the fact that hand feeding might keep sows in better trim. A light feed is used for them, of course,—the grists are combinations of oats, alfalfa hay, and protein supplement. — *Bernard Keim, King Ferry, N. Y.*

GAS STORAGE

Back in the 30's, two natural gas fields were opened up in our area—one east and one to the west of our farm. Both went "dry" soon after, at least as far as commercial production was concerned.

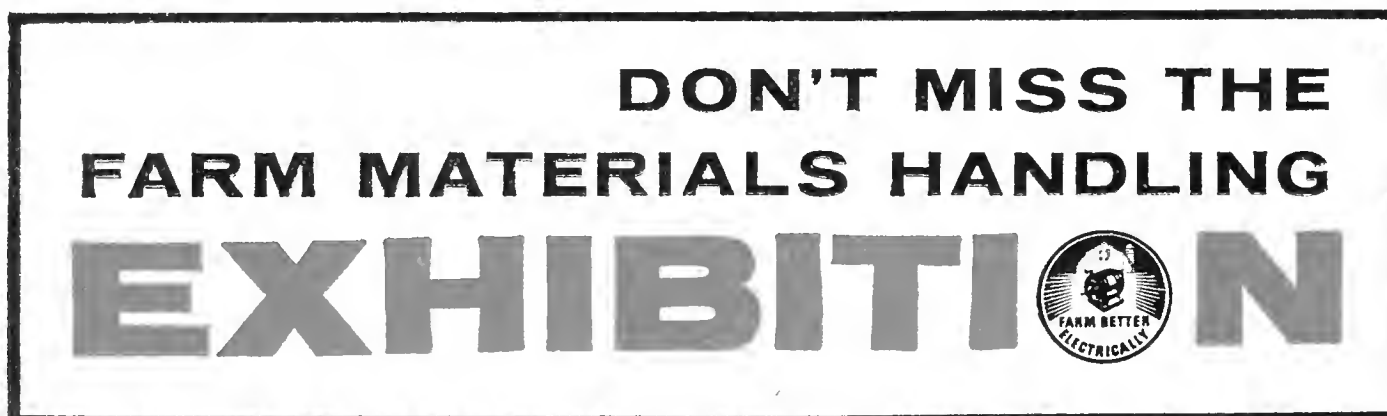
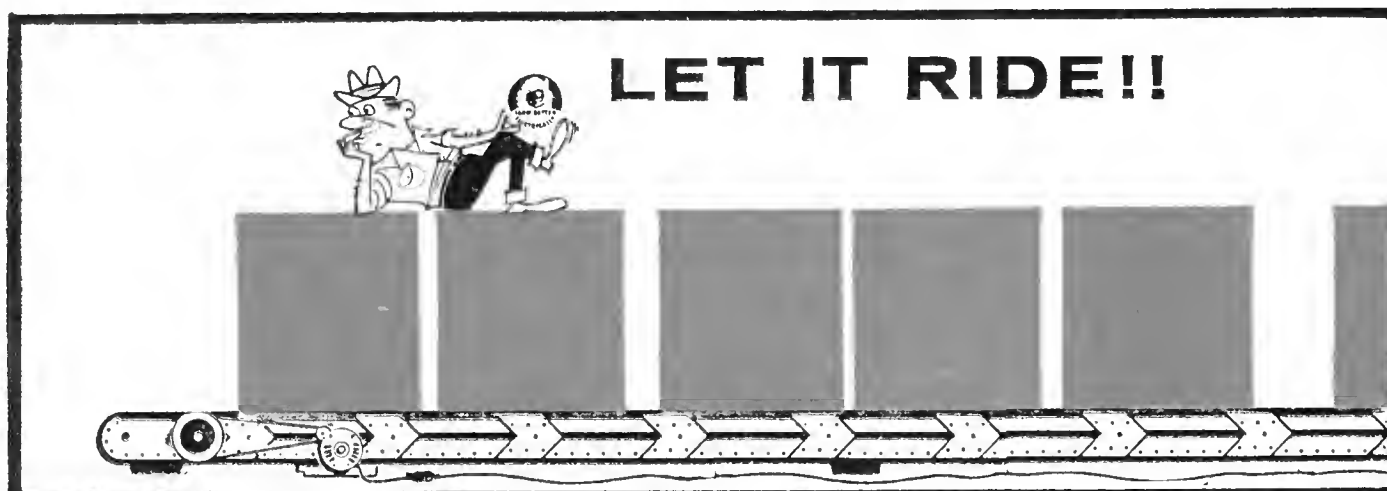
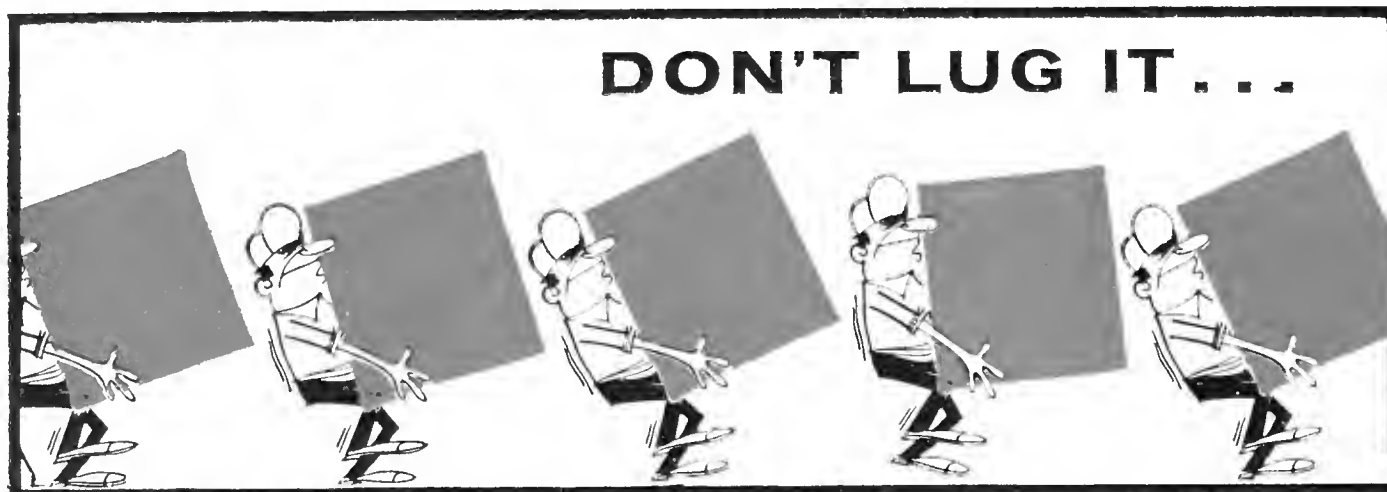
Now both fields are used by a utility company for storing gas coming from the West through pipelines. The gas is pumped into the ground during the summer and taken out in the winter. Ten wells are being used on our property for storage operations.

There are some things to remember when approached about storage rights. Lease rates can vary widely between areas—or even within a particular area. One dollar per acre per year is a standard figure, but I've heard reliably of rates as high as \$50 per acre per year. Check around some before you sign on the dotted line.

Also talk with a competent lawyer before you sign an agreement. Too many people jump at the chance to get a few thousand dollars for all mineral rights on a piece of property, not checking carefully to see how much they might really be worth. In many areas of the Northeast, it is difficult to find a lawyer with experience on gas leases because there aren't many sections that have ever been explored for gas or oil. They are available, though, if you check around enough; a lawyer without previous experience can find the answers too.

Expert advice is very important—not only in making the original agreement, but also in possible subsequent claims regarding damage to property in the process of laying pipe lines, etc. Our relationships with the gas storage company have been cordial, but it has been helpful for me to hire an agricultural consultant at times who has had wide experience on land condemnation, real estate appraisal, and other similar procedures. Without this help, a farmer may lack real-

(Continued on Opposite Page)



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**FREE
ADMISSION**

(Continued from Opposite Page)

istic guidelines as a point of departure for bargaining. Our most recent situation where we called for such help involved an appraisal for damages done by the company in the process of building a transmission line through a woodlot. Be sure, by the way, that any agreement includes provision for reimbursement for such damages.

I've often heard the comment that gas companies take more gas out of the ground storage in "played out" fields than they put in, but this is hard to prove. It sort of gripes me that the price offered for leases hasn't changed from 20 years ago. It seems to me that it should keep up with the times. Perhaps it should be booked to some index of cost—such as the cost of living index—so it would change with inflation.

As a last suggestion, I'd recommend that anyone thinking of signing a lease for gas exploration watch for a storage clause in the lease. Some leases grant storage rights for an indefinite future period at the same rate as that paid for exploration rights. — *Miles Houck, Wayne, New York*

GROWING TABLE BEETS

We grew 80 acres of table beets in 1962 and have about the same in 1963. It is common on our farms to grow beets after beets, but we also grow them after sod or some other

vegetable crop such as carrots.

Fertilization practices vary some from field to field and from year to year, but as a general rule we put on 1500 pounds of 8-16-16 or 5-10-15 per acre. We have sometimes plowed under 400-500 pounds of this and then put on the rest of it with the planter. This year, we tried some anhydrous ammonia on one field at around 80 pounds of actual nitrogen per acre—we used 6-24-24 in the planter on that field. It is standard procedure for us to put on 500 pounds of rock salt per acre each year on beet fields—spread with a lime sower, usually soon after we plow and before harrowing.

We get bulk fertilizer at a ferti-

lizer depot, using dump trucks to pick it up. It is certainly simple to push fertilizer out the back of these trucks into the lime sower, drill, or corn planter. In the bulk form, fertilizer is \$4 to \$6 cheaper compared to that in bags, and it is a lot easier to handle. Besides, there are no bags left to blow around or to burn.

We plant beets with a 4-row planter fitted with special plates. It is a disk planter and we set it for a 28" row—the same space as we use for dry beans. This way, we don't have to change our cultivator adjustment between crops.

The beet seed is already treated when we buy it; some of it is de-corked—we prefer this type because it works better in the planter. By

the way, we estimate we travel about three miles per hour when planting beets.

We spray with borax right after planting in an 8" band over the row. This kills most of the weeds, but we still do hand weeding. Last year there were 100 people in one group of Puerto Ricans pulling out weeds.

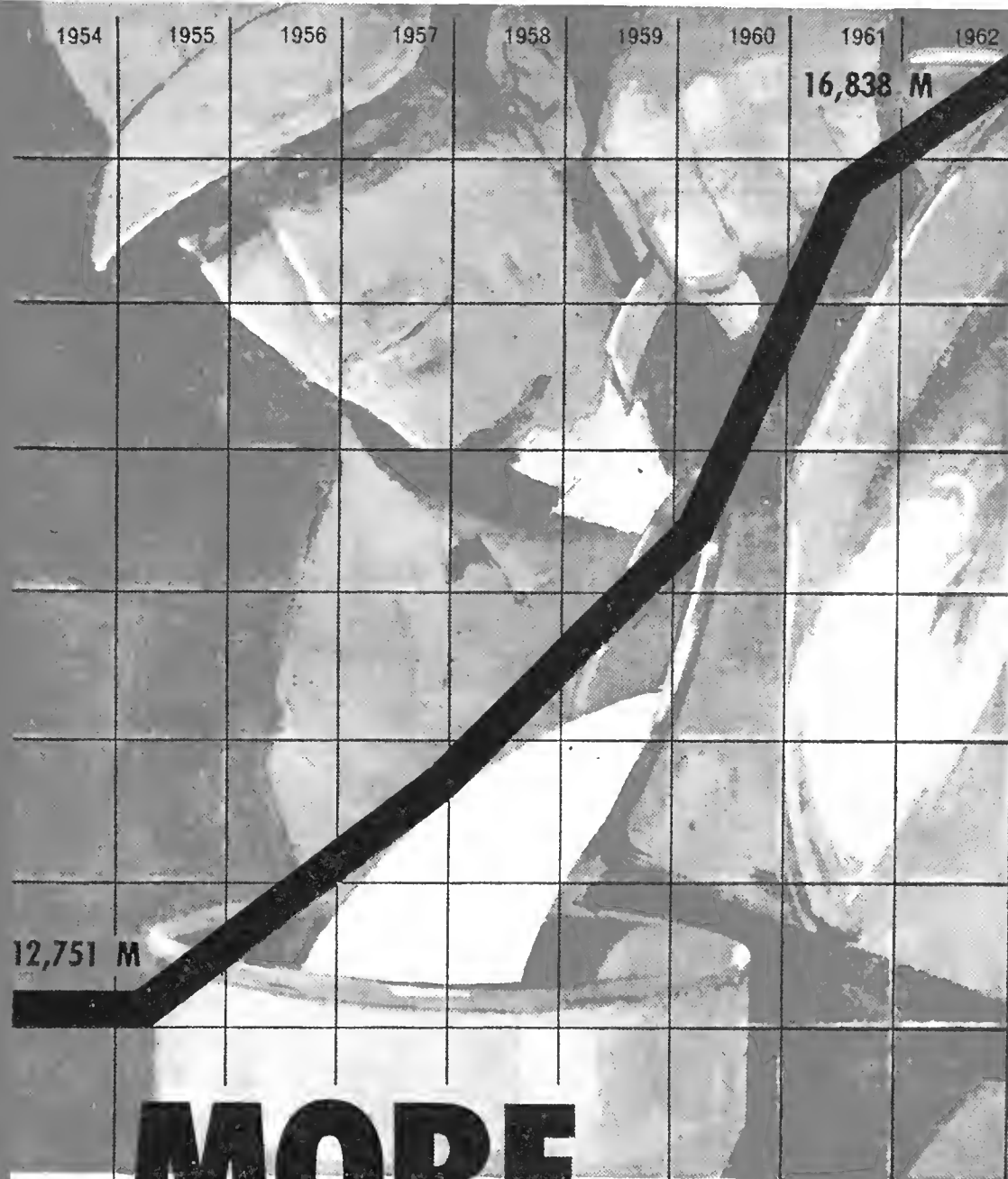
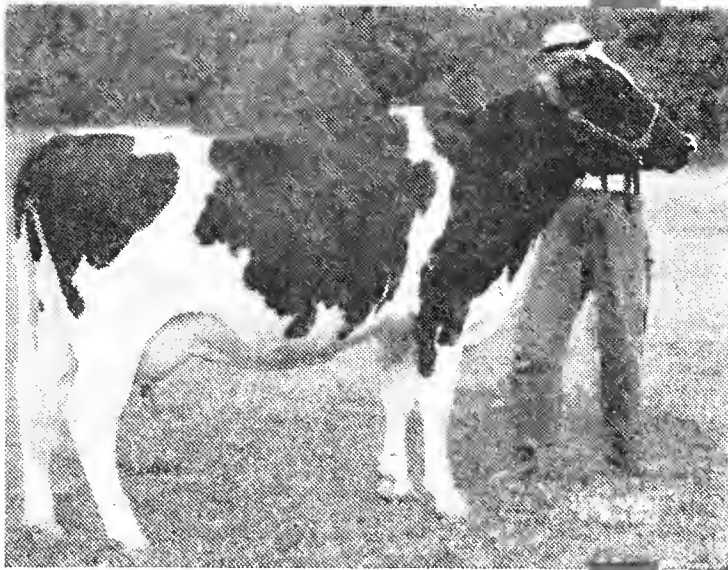
As soon as the beet bottoms start to form, we broadcast ammonium nitrate at the rate of 100 pounds per acre. We have our own beet harvesting machine that pulls them, takes off the tops, and elevates them into a truck. Most of them are contracted for in advance by processors, but we always grow a few acres for the open market. — *Ernest Pearce & Lyle Bills, Stanley, N. Y.*

Erwin Teneyck's build-up in milk production . . . 4,087 lbs. per cow per year . . . is represented in this graph.



Erwin Teneyck, Waterloo, New York

The Erwindale Farms herd, owned by Mr. Teneyck, recently became the first herd in Seneca County to exceed 600 lbs. BF per cow. The herd averages 631 lbs. BF per cow . . . an increase of 141 lbs. per cow since he started breeding with ABS about 10 years ago. "Good breeding, along with good feeding and management, have helped me reach my present average," he says. "My goal is 1,000 lbs. fat per cow." Shown below is "Ferry," an ABS Daughter in the Erwindale Farms herd. Her first three records are 13,700, 18,690 and 18,767 lbs. of milk . . . and the third is incomplete!



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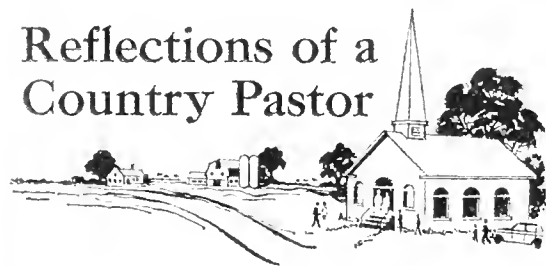
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Reflections of a Country Pastor



STRUGGLES FOR PERFECTION

WE AMERICANS want everything to work perfectly—all the way from machines to missiles. We want clothes to fit perfectly, to be in perfect taste. Our homes must be "perfectly" appointed.

This seems to be the reason for economy runs in autos, beauty contests in girls, judging contests in apples, eggs, potatoes, cattle, sheep, poultry—everything must be as perfect as possible. "A small flaw destroys a whale of a lot of perfection" some say.

Yet in all measurements — machines, operations in production lines—we must allow for a small degree of "tolerance." There must be some "allowance" for lubrication, for expansion and contraction due to temperature changes. Reducing "friction", in any mechanical function is a necessary consideration.

This desire for "perfection," the effort to bring it to reality, the urge to do it good, better, BEST—all are evidence of spiritual upsurges in us. "The upward reach," someone has called it.

At the same time—when we fail—come short of perfection, we get encouragement when we remember that God uses imperfect people to get his perfect will "approximately" if not perfectly done. "He remembers that we are dust" and promises that "As far as the east is from the west, so far will He remove our sins (our "misses of the mark") from us."

The urge for perfection, the necessity for tolerance, the fact that God uses man's imperfections and forgives his "misses" all make for an amazing union of the human and the divine.—*Arthur Moody*



Local chairman Stan MacDougal of Prattsburg (left) and Rich Seligman are shown talking over plans on the Exhibition site.

Don't Miss This One!

WHAT PROMISES to be the largest machinery show and demonstration, and the most varied and interesting program ever presented at the Empire State Potato Club Field Day, is being planned for the 30th annual event to be held at Prattsburg, in northeastern Steuben County, New York, on August 14 and 15. The new name is the Farm

Equipment Show and Farm Materials Handling Exhibition.

Field Demonstrations

Of special interest to potato growers are a planting of new varieties, including Fundy, Earli-Red, Snowflakes, Norland, and a russet-skinned seedling from North Dakota; and a herbicide test that compares

four promising new weedkillers. A systemic insecticide trial will permit growers to evaluate the performance of insecticides applied to the soil at planting as compared to conventional foliage applications.

All the various field operations of plowing, fitting, spraying, digging, and mechanical harvesting of potatoes will be demonstrated. A unique item will be a potato planter that cuts seed as it plants.

Long known as the largest machinery show staged in the State, the 1963 Field Day will include the vast materials handling exhibit of the New York electric power companies—hay elevators and conveyors, hay driers, various silo unloading and feeding devices, milk coolers and milking machines, and other labor-saving equipment.

Four types of tours by chartered busses will be conducted each day to the nearby mucklands, the vast vineyards overlooking beautiful Lake Keuka, often referred to as the

Rhineland of America, to several large and modern dairy farms, and a skyline drive over West Hill to observe typical Steuben hilltop potato farms.

Seligman Is Host

The farm of John and Richard Seligman, just south of the village of Prattsburg on New York Highway 53, is the site of the event. Chairman of the two-day Field Day is Prattsburg mayor and potato shipper Stanley MacDougal. County Agent T. W. Markham is secretary and director of educational demonstrations, and H. J. Evans of Georgetown, secretary of the Empire State Potato Club, is director of the machinery show. Other committee chairmen are Lucien Hills, Wayland, finance; Lyman Hammond, Binghamton, equipment exhibit; and William Stempfle, Bath, publicity.

Prattsburg group leaders are Dr. Tachau, first aid; Warren McConnell, concessions; Ervin Stanton, police and parking; Richard Seligman, grounds; and Robert Seligman, tours.—Bill Stempfle



For a Brighter Future

BE OUR GUEST!

To those of you who plan to attend the New York State Exposition in Syracuse, we say "Be Our Guest."

Please accept this as our cordial invitation to visit the Mutual Federation exhibit during your stay at the Exposition Grounds. A fully trained staff of dairy experts will be on hand at all times, to answer your questions. Incidentally, we plan to have an extra supply of comfortable chairs, so if you don't have a question or problem, just come in and rest your feet—We'll be glad to see you.

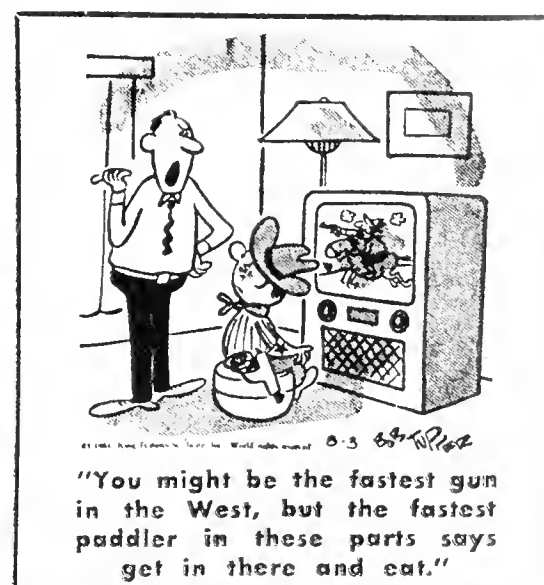
Over 7,000 progressive dairy farm operators look to the Mutual Federation of Independent Cooperatives for enlightened leadership and practical solutions to today's complex milk marketing problems.



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"You might be the fastest gun in the West, but the fastest paddler in these parts says get in there and eat."

See It At The Fair

August 27—September 2

The New York State Exposition is a place to see the latest developments by industries that serve agriculture. It's also the place for meeting friends, seeing the sights, eating popcorn, and having a good time.

TIME WAS when the farmer drove his best livestock to the county fair, and his wife followed in the buckboard with her canned jelly and jam and homemade quilt, and, if they were lucky, they returned home with blue ribbons and a few dollars in premiums. Today, the New York State Exposition offers a kaleidoscope of the patterns of modern farming tinted with the colors of pioneer agriculture, and the farmer will be competing for more than \$150,000 in premiums.

Modern agriculture will be on view, while old-timers can stroll with their memories through the Daniel P. Witter Agricultural Museum with its hand plows, cultivators, and spinning wheels of a by-gone age.

As usual, the Exposition has enlisted the assistance of veteran agriculturists from the New York State College of Agriculture at Cornell University, and top livestock, horticultural and produce men to supervise its departments.

The cattle department, headed by its general superintendent, Harry R. Ainslie of Ithaca, will be offering \$26,970 in premiums. The top show herds of the Northeast again will be competing alongside local livestock breeders for the coveted royal purple of the championship and the lavender award of the reserve champions.

Meat Contest

Related to the cattle and other livestock shows will be the Quality Meat Contests, offering \$1,835 in premiums. The public auctions of all grand champion carcasses in this division will be held Thursday, August 29. The contest has categories in beef, lamb and pork.

The sheep department will have \$7,164 in premiums; the swine, \$4,402; and dairy goats, \$956. Charles N. Burmaster, superintendent of the poultry, rabbit, pigeon and cavy department, said that premiums totaling \$11,162 will be offered here this year.

The Farm Products show, guaranteed to make a visitor hungry at first glance, will feature everything from the largest pumpkin grown in New York State to the best Irish Cobbler potato.

Here, also, farmers will display white and red winter wheat, rye, barley, oats, buckwheat, red clover seed and birdsfoot trefoil. Forage and silage crops will be judged. Maple products and Christmas tree displays will be included in this department. A highlight of the Christmas tree exhibit will be its Court of Champions.

In forage displays, the 1963 Exposition will offer a demonstration by the Department of Agronomy at Cornell. Drs. Walter L. Griffith and Ralph E. Krenzin will hold the demonstrations daily in the Farm Machinery Building.

The Exposition, as always, will have a special section for farm youth organizations. Department L—the Youth Show—is one of the most interesting, active and productive displays on the Syracuse grounds, covering many aspects of youth and farming all the way from

crops and livestock to horticulture, plant pathology and entomology. Wendell E. Field, its superintendent, reports that \$28,219 in premiums will be offered this year.

Gathering for competition and renewal of old friendships from previous Expositions will be the boys and girls of the Older Rural Youth, the 4-H Clubs, the Future Home-

makers of America, and the Dairy-men's League Young Cooperators.

Displays of new products, equipment, supplies and educational features will highlight the Dairy Products Department, which features produce made only in New York State. Here will be huge Cheddar cheeses, creamery butter and other dairy foods.

The New York State Grange, which has served agriculture and rural people for 96 years, again will have its special department in a wing of the Horticultural Building. At one end of the wing is the stage where performances will be put on twice each day.

The Farmstead will be an operating demonstration of modern farming, such as loose housing dairy, milking parlors, new poultry

housing, machinery storage with a farm shop and a modern farm house. It will be the 14th year of this project.

Poultry Products will be a separate show, with emphasis on backyard barbecues.

On the entertainment side of the program, the Exposition this year will offer 101 free shows in Empire Court and at the Grandstand.

In addition to agriculture and entertainment, the Exposition will also highlight women's activities, education, sports, industry, sciences, and arts, farm machinery, and thousands of other exhibits and displays of interest to the entire family.

A Fireworks Spectacular will be held in front of the Grandstand at 9:30 p.m. on Labor Day, closing day of the Exposition.

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St. Johnsbury, Vt.
White River Jct., Vt.
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Taunton, Mass.
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Morrisville
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Olean
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Penn Yan
Pleasant Valley
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Warsaw
Watertown

NEW JERSEY

Bridgeton
Flemington
Freehold
Moorestown
Newton



The Pomainville Farm is going to town since they went to



"Can I ever come out ahead in farming?" That was what worried Ed Pomainville when he was trying to hold onto his 175 acres back in 1933.

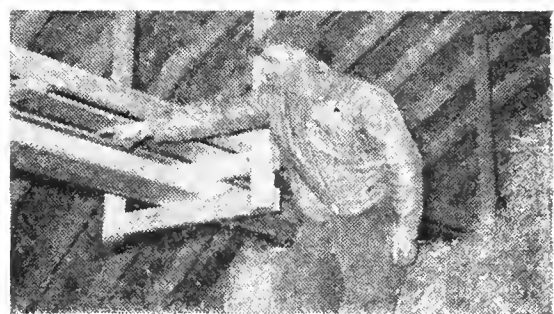
Today, he and his son are making a good living from their highly productive 550 acres in Pittsford, Vt. Last year they shipped 760,960 pounds of milk from a 58-cow milking herd.

"Labor saving is very important," Ed Jr. says. "A man is way ahead if he keeps—not just a lot of cows—but as many good ones as he can handle himself." The new barn, built with Cooperative Farm Credit help, has an automatic hay bale conveyer. "I can run bales into

the loft without anyone there," he says, "then mow away when it rains."

Bulk grain bin feeders, a round-the-barn type gutter cleaner with a new power take-off type spreader that moves manure directly to the fields twice daily—all save labor. Milking is automatic, too. A glass pipeline system integrates with the bulk tank.

"But if it hadn't been for that first Federal Land Bank loan and Production Credit, I don't think I would have done anything," Ed Senior recently told local Farm Credit Asst. Mgr. Lew Latuch. "It changed my whole future."

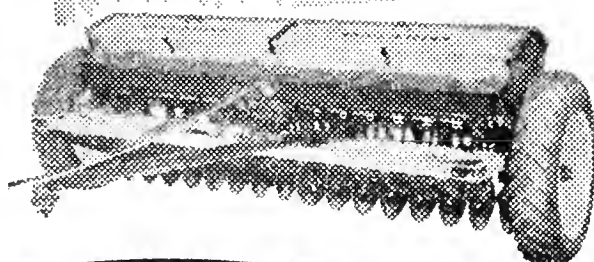


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Gayway Farm Notes

By HAROLD HAWLEY



EASY DOES IT

Haying hasn't been a breeze this season and possibly never will be — but it sure has been easier this year. With the new self-propelled windrower, Bruce can mow, condition, and windrow enough in two or three hours each morning to make a day's baling. This certainly is some change from keeping two or three men busy most of the forenoons with a mower, a conditioner, and a rake all going.

The bale thrower makes baling fast and easy; the mow conveyor simplified the work at the barn tremendously. Three of us put in 900 or 1,000 bales a day without much strain, and got some weed spraying and cultivating done on the side.

Admittedly we have much to learn about how to handle hay behind a windrower. We aren't even sure it needs to be turned on good curing days—some we have and some we haven't. Turning it may speed up the curing—but costs time and money. We've been amazed at how well windrowed hay dries out after a rain. One of the things Bruce keeps mentioning is that even with the heavy, badly-lodged hay he can see where to drive. The hay from the last time across is all windrowed 4 to 5 feet from the standing hay. Some of the stuff has been so rank that it would have been pretty hard to make a track with any swather board.

We are thoroughly pleased with the windrower but, like any system, it is not perfect. The biggest drawback comes from the occasional big bunch that comes when something gets plugged up. The big slug doesn't cure out, and if we turn the windrow the big bunch doesn't turn over well; maybe it doesn't turn at all. This leaves two choices—to get off and do it by hand or ignore it. Human nature being what it is, it sometimes gets left—and this isn't good.

The windrow turner is so simple it's unbelievable, but it does the job—and gently, too. We had an old cylinder lying around, so we hitched it up so we can raise the turner hydraulically, which avoids tearing and bunching the windrow at the ends. We cut the hay 5 or 6 swaths around the field and then go back and forth; this works pretty well. The windrower leaves pretty square corners to try to pick up with a baler if one were to go around and around a field.

Alarm System

It is about 150 feet from one end of our barn to the other. The mow conveyor runs the full length, and although it works well, now and again something goes wrong. By the time the man in the mow could alert the man on the wagon and get everything shut off, too much else had happened.

So we got some light wire, some

buttons and switches, a six-volt dry cell battery, and a big buzzer bell. The button switches are dropped to each mow on a wire from the main wire which runs along the top of the barn. Now we can get shut down before a little trouble has become big trouble. This has turned out to be a real good investment.

STRANGE WAYS TO MAKE A LIVING

A good friend of ours and of a lot of farmers all over the world dropped in the other day. He is the president of a helicopter spraying-dusting outfit, with several ships serving agriculture on many fronts. One is now spraying rice in Arkansas, one is spraying mosquitoes on Staten Island, last winter one sprayed rubber trees in Africa, two were protecting Florida fruit and vegetables from insects, and one keeps busy flying regular runs over the Gettysburg battlefield giving the tourists a real view of the historic sites.

This enterprising outfit has flown over Hawaiian pineapple fields and over South and Central American banana trees, etc., etc. One needs look no further to find a real American success story. It all started with a very little money, some good training, and a lot of hard work, plus a real interest in doing an effective job of pest and insect control. This is how Ag-Rotors, Inc., of Gettysburg, Pa., has grown under the direction of Carrol Voss.

Strange Business #2

While many of us struggle to breed and develop a herd of cows, there are those just as zealously breeding Siamese cats! Admittedly, I don't know how the other half lives, but I was a bit amazed (to put it mildly) to find that just ordinary Siamese kittens may bring \$25 and up, and show stock much more.

Please don't all rush in and kill this good thing—which probably isn't such a soft touch after all anyway. Maybe it's like getting rich raising rabbits or chinchillas or puppies—it's not quite as good as it sometimes sounds. Anyway, I'd sure hate to try to raise any \$25 kittens around the barn. Our mortality rate runs pretty high.

WORKING HEIGHTS

I wonder if the makers of some of the equipment we buy ever use any of it. As an example, the stainless steel double vat wash tanks found in most milkhouses are just the right height for any ordinary 4' 9" man. There is no allowance for change except for the little leveling screws at the bottom. Rather than be crippled up every day, we long ago welded extensions on the legs.

Wouldn't it be fine if someone took the trouble to build things to

(Continued on Opposite Page)

NEW PROFITS

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SAT., SEPT. 14, 1963—1 P. M.

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Selling champions of 1960, 1961 and 1962,
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Stan Haworth

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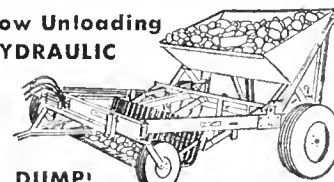


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Tons and tons a day of small to 800 lb. rocks and
never leave tractor seat—8 models in world wide
use. 2000-4000 lb hopper capacities — 16 years
field proved—true contour rock picking with front
caster wheels.

Write: **VIEL MFG. CO., Box 632**
BILLINGS, MONTANA

Gayway Farm Notes

(Continued from Opposite Page)

fit, or to be adjusted to fit the users?

The worst working conditions I ever saw were in a candy plant where the conveyor belts were all too low. Talk about "stoop labor"! It would break most people's backs just to stand in that position even if they did no work.

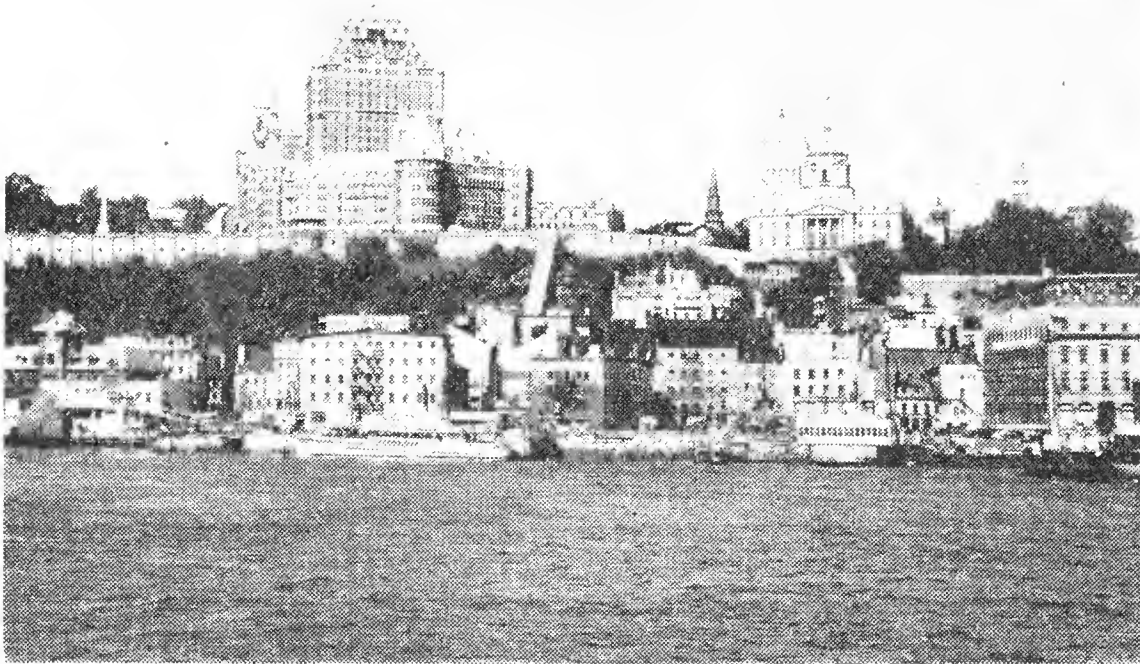
"LIKE A RED, RED ROSE"

Did you ever see so many beautiful roses as there have been this year? Several bushes of climbing roses in various yards in our town have been so spectacular that I have taken to traveling the "scenic route" whenever possible. Even our roses, which looked so sick after the hard winter, are giving forth with much beauty.

Surely we who live on the land are much blessed. Beauty is all around to be seen and smelled. Here's a new one I have been enjoying on my Sunday morning rides. I let the horse walk slowly through the woods while I keep my eyes closed; it's amazing the variety of smells, most of which I cannot identify unless I open my eyes. I'm convinced we miss a whole wonderful world of enjoyment simply by not developing and using our olfactory organs. We all know the sweet smell of new-mown hay, but for the most part are unaware of the multitude of odors around us. What a pity!

* * *

More than half of the living Nobel Prize winners who went to college in the United States earned degrees at land grant institutions.



Few cities of the world offer the traveler as impressive and beautiful a skyline as the city of Quebec, with its ancient ramparts and the famous Chateau-Frontenac Hotel dominating the scene.

Low-Cost Tour

IF YOU would like a wonderful carefree vacation this fall, AMERICAN AGRICULTURIST hopes you will come with us on our Fall Foliage Tour through New England and Canada. This is a deluxe bus tour similar to the extremely popular ones we have had in past years, and the cost is only \$447 from Albany, N. Y. The dates are October 6 to 20, just at the time when fall foliage is nicest.

Our party will gather in Albany, spend the first night at Glens Falls, and then drive across southern Vermont to the beautiful White Mountain section of New Hampshire.

We will continue northward to the 300-year-old city of Quebec, the only walled city in North America. We stay two nights in this fascinating old-world city and make side trips to the shrine of Saint Anne-de-Beaupre and to Montmorency Falls.

Next, we follow the mighty St. Lawrence River northward toward the Gaspé Peninsula, continuing on to New Brunswick to see the Bay of Fundy with its "world's largest" tides and to visit Magnetic Hill.

No trip to the Maritimes would be complete without visiting the city of Halifax whose harbor is used by ships of all nations. We will spend

two days traveling in this historic section of Nova Scotia. At Yarmouth, where Lief Erickson quite possibly spent the summer of the year 1000, we'll board the new Blue Nose Ferry and sail across the bay to Bar Harbor, Maine.

Historic New England

After a drive around Acadia National Park and an overnight stay in Augusta, we follow the Maine and New Hampshire Turnpikes to Massachusetts where so much of our history was made. Stories we've read will mean more to us when we visit Salem, Boston, Lexington, Concord, and Plymouth. We'll see Faneuil Hall, Paul Revere House, Old North Church, Plymouth Rock, and many other famous places.

All-expense Ticket

The all-expense ticket covers transportation, the handling of your luggage, first class hotel accommodations, all meals, and scheduled sightseeing. For complete details, just fill out the coupon below and mail to the address given on the coupon.

A. James Hall
American Agriculturist
Box 367-F
Ithaca, New York

Please send me without obligation on my part the illustrated itinerary for your Fall Foliage Tour, Oct. 6-20.

Name _____

Address _____
(Please print)

Eastern's STRENGTH LIVES IN ITS MEMBERS!

The face of Eastern Milk Producers Cooperative is the face of the dairy farmer because Eastern membership is made up of only dairy farmers—vigorous, straight-thinking, hard-working dairy farmers. Thus, Eastern lives, thinks, plans, works and, whenever necessary, fights for only the dairy farmer.

Eastern knows who it represents. Eastern's unmatched record of accomplishment in behalf of the dairy farmer proves it. So does the increasing number of dairy farmers who belong to and look to Eastern for strong, decisive leadership.

If you are a dairy farmer and not already a member of Eastern . . . don't you think it's about time to become one?

See you at the New York State Exposition!

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COOPERATIVE ASSOCIATION
KINNE ROAD, SYRACUSE 14, NEW YORK

FRANK CURTIS, Bainbridge, N. Y., a member of Eastern since 1941



Classified Ads

PUBLISHING AND CLOSING DATES

September Issue --- Closes Aug. 3 October Issue -- Closes Sept. 7 November Issue---Closes Oct. 5

DAIRY CATTLE

COWS FOR SALE—T.B. and Bloodtested. Holsteins in truckloads. E. C. Talbots, Leonardsville, N. Y.

WISCONSIN DAIRY COWS—new arrivals each week. Good deal for every dairyman. Free delivery—one cow or truckload. If you are interested in adding good cows and improving your dairy herd, you will be calling the right man. I am interested in building up a good reputation with the dairy farmers of your community. Reuben Greenberg, Inc., Columbus, New Jersey, 3 miles south, exit 7 New Jersey Turnpike. Out of State use area code 609. Phone 298-1021 or 298-1664.

FOR TOPS IN Livestock Marketing—Regular weekly sales and farm auctions: Empire Livestock Marketing Cooperative.

HOLSTEINS

60 REGISTERED HOLSTEIN first calf heifers. Mostly from NYAEC sires. Will freshen in Sept. Accredited, certified and vaccinated also Lepto inoculated. Philip Disque, Mgr., Furnace Brook Farm Shaftsbury, Vermont. Phone Bennington 802-442-5840.

WANTED: 25-35 HOLSTEIN cows, August, from dairyman desiring retirement. Harold Haslett, Greene, N. Y., 656-8218.

100 ALL TOP HOLSTEIN Heifers. From real top cows in the very best dairies. Freshen July, Aug., Sept., Oct. Kenneth O. Ward, Candor, N. Y. Phone 65-9-5175.

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FOR SALE: Milking Herd 35 Registered Ayrshires. Mostly fall and early winter calvers—accredited, listed, vaccinated. Herd average 1962 was 11,556 milk, 469 fat actual. Location Canada, price \$10,000.00 U.S. at farm. Box 514-DW American Agriculturist, Ithaca, New York.

JERSEYS

45 REGISTERED JERSEYS, including 24 milk cows, 7 bred heifers. Prefer to sell as group, will sell individually. Nelson J. Brownell, Dryden, New York.

MILKING SHORTHORNS

BEEF, MILK—GOOD producers with good roughage on less grain. Started "Polled" bulls, heifers. Hendrickson Farm, Cobleskill, N. Y.

SHORTHORNS

MILKING SHORTHORNS: 20 females all ages. Sire from 100,000 lb. cow. W. J. Marshall, Ancramdale, (Eastern) New York.

CHAROLAIS

YOUNG 15/16 CHAROLAIS Bulls. Breeding age. Top bloodlines. F.W.T. Cotano and Kenedy. Here is your golden opportunity to improve your herd. Lee's Hill Stock Farms. Box #26, Cooperstown, N. Y.

BREEDING CATTLE

FOR SALE: Registered Scotch-Highland breeding cattle. Gerald Hall, Forestville, N. Y.

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SEVERAL YOUNG BULLS and heifers sired by Ledgesmere 40, weight 1980, a grandson of Eileenmere 1100. Clayton Taylor, Lawtons, New York.

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REGISTERED POLLED Herefords. Cows—heifers—calves. Barton-Miller Farms, Dryden, N. Y. Est. 1838. P.O. R.D.#2, Freeville, N. Y. HERD OF 40 COWS, calves, steers, heifers. Alhany, N. Y. RO 5-2260.

2 YEARLING POLLED Hereford Bulls. Francis Warner, Chenango Forks, R.D. 1, New York. Rte. 369. Phone MI 3-2350.

CHAROLAIS BEEF CATTLE

CHAROLAIS—200 HEAD registered and recorded bulls, cows, heifers for sale. Reasonably priced. No Saturday sales. Flying Horse-shoe Ranch, Morris, Pennsylvania.

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REGISTERED CORRIEDALES. Ewes—rams, lambs. Barton-Miller Farms, Dryden, N. Y. Est. 1838. P.O. R.D.#2, Freeville, N. Y.

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QUALITY SUFFOLK yearling rams to head purebred and commercial flocks. Roy F. Van Vleet, Lodi, N. Y.

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TWENTY THREE LAMBS, a registered Oxford Ram and 20 ewes. Priced right. R. J. Lucy, R. D. 2, Iilon, N. Y.

OXFORD RAMS. Selected, registered yearlings, excellent breeding. Also choice yearling ewes and ewe lambs. Lawrence L. Davey, Marcellus, New York.

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REGISTERED YORKSHIRE boars, gilts, weanling pigs. Arthur Gabriels, Highland Road, Lyons, New York. Phone WHu-4730.

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DAIRY GOATS small investment, good return. Learn how. Factual magazine, 6 months, \$1.00. Dairy Goat Journal, Columbia Q-36, Missouri. SAANEN GOATS-PUREBRED Kids from high milkers. Low prices. Free price list. MacLaughlin, Perkiomenville, Pennsylvania.

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FOR SALE: One team horses, work double and single anywhere. Jules Theoret, Alburg, Vermont.

ARABIAN STALLION. Bay, white markings, age 5. Rides, drives, jumps. Sound—gentle. Mr. McAleeran, Long Valley, N. J. Phone 876-3181.

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COLLIE PUPPIES, championship breeding. Beautiful, intelligent \$30.00-\$35.00. Plummer McCullough, Mercer, Pa.

AKC AIREDALE: Wire Fox puppies, year around. Tourtellotte, Morris, N. Y.

ENGLISH SHEPHERD puppies, eligible for registration. Excellent family dogs. Arthur Hoose, Fishkill, New York.

COLLIES, COCKERS. Beagles, Fox Terriers. Woodland Farms, Hastings, N. Y.

BEST IN BORDER Collies, imported stock. Six weeks to six months \$20—\$50. Dunsmore Farm, Swanton, Vt.

BORDER COLLIE PUPPIES. Imported bloodlines. Training instructions. Satisfaction guaranteed. Floyd Winne, Cooperstown, N. Y.

ENGLISH SHEPHERD pups-working strain. Hendrickson Farm, Cobleskill, N. Y.

COCKER PUPPIES, championship breeding—buffs and parti-colors. Claude Fuller, Cananda, N. Y.

AKC REGISTERED German Shepards, best of blood lines, friendly with children and excellent guard dogs. River Road Dog Kennel, Route #3, Lowville, N. Y. Richard E. Young, Phone 890-R or 752.

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RAISE ANGORA, New Zealand Rabbits. Fishworms on \$500 month plan. Free details. White's Rabbitry, Mt. Vernon, Ohio.

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BIG WHITE LEGHORNS Brown Leghorns, Minorcas, Anconas, Rocks, Reds, Orpingtons, Brahmas; 35 breeds. Ducks, started chicks. Free catalog. Mt. Healthy Hatcheries, Mt. Healthy, Ohio.

MEADOW VIEW CHICKS — Rapp Linecross Leghorns, Harco Reds, Harco Sex-Links, Lawton Buffs, Peterson Cornish Cross, Henry M. Fryer, Greenwich, N. Y.

MARSHALL KIMBERCHICKS. Today's Kimberchicks offer more for your chick dollar than ever before — at a time when you need every advantage. To earn extra profits in 1963 order Kimberchicks now by calling Marshall Brothers Hatchery, Ithaca, New York. AR 2-8616.

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RANGE GROWN HARCO Reds; Sex-links hatched March 22nd. Kimber K137 White Leghorns hatched April 26th. Quantities delivered reasonable. Lovell Gordon, Fultonville, N. Y.

3 TO 4 MONTH OLD Pullets, White Leghorn—Buff Sex-Link. Reasonably priced. Top quality. Parks Poultry Farm, Cortland, N. Y., SK6-9310.

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STARTED SURGICAL capons, four to six weeks old and past the danger period. Grand champions Pennsylvania Farm Show in 1962 and again this year. Make extra profits with these big, white feathered birds that bring market premiums. Easy to raise, easy to feed. Direct delivery in our trucks over wide area. Write for folder. Sunnybrook Poultry Farms, Box 106, R.D. 2, Hudson, N. Y. Phone: TA 8-1611.

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DUCKS

WHITE CRESTED, Campbells, Mallards, \$5.00 pair. Hendrickson Farm, Cobleskill, N.Y.

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SILOS, SILO UNLOADERS, barn cleaners. Nold Farm Supply, Rome, N. Y.

SILOS—FACTORY CREOSOTE Treated Wood. Maximum insulation against frozen ensilage and absolute acid resistance. Dependable lock-doweled wind-resistant construction. Immediate delivery. Box BS-83, Unadilla Silo, Co., Unadilla, New York.

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NEW! NOW TREAT Mastitis for less than 21¢ with new Uni-Power Infusion! Each dose contains: 100,000 units procaine penicillin, 100 mg. dihydrostreptomycin, 100 mg. neomycin, 750 mg. sulfathiazole, 750 mg. sulfamerazine, 5 mg. cobalt. Infuse directly into the infected quarter by withdrawing 10cc (1 dose) into a syringe with a needle, then replace needle with an infusion tube. Also ideal when drying off a cow—infuse 10cc of Uni-Power into each quarter—allow to remain until the cow freshens. "An ounce of prevention is worth pounds of milk." Recommended by leading veterinarians and dairy experts. Per 100cc bottle (10 doses) \$2.35. Six bottles \$2.25 each. Order 12 for \$25.00 and receive free syringe, needle and infusion tube. At your Anchor of New England dealers or order direct from Anchor Serum Company of New England, Dept. A-4, Topsfield, Mass. Write for free veterinary supply catalogue and health guide. Please note: As always, milk should be withheld from human consumption 72 hours after the last treatment. TERRAMYCIN for mastitis \$6.00 doz. Pen-FZ \$6.75 doz. Penicillin-Dihydro-streptomycin ointment \$4.00 doz. Postpaid. Paul & Company, Harvard, Massachusetts.

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AFRICAN VIOLETS—four healthy plants \$1.00 postpaid. Lynora Violets, 219 Maxwell Drive, Trenton, N. J.

STRAWBERRY, RASPBERRY, Blackberry, Blueberry plants for Fall planting. Order now. Write for free catalog describing 70 small fruit varieties. Walter K. Morss & Son, Bradford, Mass.

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SENSATIONAL APPLE Discoveries—Exclusive patented Starkspur Golden Delicious and famous Starkrimson! New spur-type trees bear years earlier. Also Dwarf Trees for giant-size Apples, Peaches, Pears for backyard and orchards. Stark-Burhank Standard Fruit Trees, Roses, Shrubs, Color-Photo Catalog Free. Stark Bro's, Dept. 30384, Louisiana, Mo.

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PROTECT YOUR BERRY CROPS, vegetables from birds, animals with cheesecloth. 100 yards by 48", convenient 10 yard lengths, \$7.50 prepaid, 50% less mill price. Joseph Hein, 120F Eton Road, Thornwood, N. Y.

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USED IRRIGATION pipe and pumps, as well as complete systems—1,800' 6" \$1.00 per foot—used #30 Rainbirds \$3.00, 3 used Chrysler 6 cylinder pumps from \$750, with new guarantees, 1,000' of 3" with couplers only 40¢ per foot—many other items. Williamstown Irrigation Company, Williamstown, New York—Code 315 964-2230.

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ARTIFICIAL BREEDING Technicians. Are you interested in a position with the fastest growing A.I. Organization in the U.S.? Several choice locations are still available. Write to—Curtiss Breeding Service Inc., Danny Weaver, District Manager, Little York, N. Y.

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FELLER'S AUCTIONEERING College. Free catalog, 225 South Schuyler, Kankakee, Illinois. LEARN Auctioneering, term soon. Free catalog. Reich Auction School, Mason City 11, Iowa.

AUCTION SCHOOL, Ft. Smith, Ark. Free catalog. Also Home Study Course.

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FARM BUILDINGS for all purposes, low cost, easy terms. Nold Farm Supply, Rome, N. Y.

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SEND WOOL TO us for beautiful, warm blankets. Free literature, West Texas Woolen Mills, 443 Main, Eldorado, Texas.

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FOR TOPS IN Livestock Marketing—Regular weekly sales and farm auctions: Empire Livestock Marketing Cooperative.

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SCHOHARIE, MONTGOMERY, Albany, Schenectady, Fulton Counties. Country properties. Specializing in farms. Mort Wimple, Realtor, Sloansville, N. Y.

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PRINTING FOR FARMS, all kinds, quality, economical, catalog. Inkwell, Dept. G, 1220 Hertel, Buffalo 16, New York.

(Continued on Opposite Page)

ADDITIONAL CLASSIFIED ADS

(Continued from Opposite Page)

REAL ESTATE WANTED

WANTED—FARMS—LAND—Country Homes—Radius 30 miles Pittsfield—Write Atlas Realty—24 Hamlin, Pittsfield, Mass.

WANTED—FARMS. Village, City and Country homes, acreage, business opportunities, investment property for sale, in New York State and Pennsylvania. Write or phone, no obligation. W. W. Werts Realty, Johnson City, N. Y.

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BARN CLEANERS, silo unloaders, engineered by Patz. New different hunk feeders, manure stackers, replacement chains for all make cleaners, low cost, easy terms. Noid Farm Supply, Rome, N. Y. Willard Howland, Southampton, Mass.

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10-TON TRUCK HOIST \$199.99—\$50 down Can use agents. Dunbar, 2920 Pillsbury, Minneapolis 8, Minnesota.

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FOR SALE: OWATONNA Self-Propelled Windrower with hay conditioner—like new condition. Howard C. Anderson Accord, New York. Tele phone: Kerhonkson 2211; High Falls 687-2511

TRACTORS: ONF ROW type and Ford type. Bought and sold. Phil Gardiner — Used Auto mobiles, Tractors & Machinery. Write Mullica Hill, N. J. Phone GRIDLEY 8-6291.

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BARBED WIRE-4 P. T. 12 1/2 GA. Galv. 80 Rod Reels-Special Sale \$6.39 F.O.B. Millhurst Mills, Freehold, New Jersey. Phone Area 201 HO 2-2000.

FARROWING CRATES—Complete with creep and panels, and waterer bracket. Only \$22.95. Free literature. Dolly Enterprises, 153 Main, Colchester, Ill.

RIDING GARDEN TRACTORS, mowers, cultivators and snow throwers. Masterson Saw & Tool Service, 87 Oneida Street, Sauquoit, New York.

WANTED: SMALL apple grader, brusher preferred. Floyd Moore 11, Germantown, N. Y.

LAMINATED RAFTERS & Arches for barns and sheds. Douglas Fir bonded with completely waterproof glue. Popular sizes stocked. Extra heavy rafters — extra low prices Box S-83 Unadilla Silo Co., Unadilla, N. Y.

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WE CAN DELIVER good quality new crop 1st cutting dairy hay. Now is the time to buy. D. Arnold Boyd, York, New York. Phone: Genesee 892

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ATTIC AND BARN 'Junk' worth money. Will buy almost anything pre 1910. Send brief descriptive list. Judah Webberman, 1 Grandview Ave., Monsey, New York. Phone 914 EL 6-3556.

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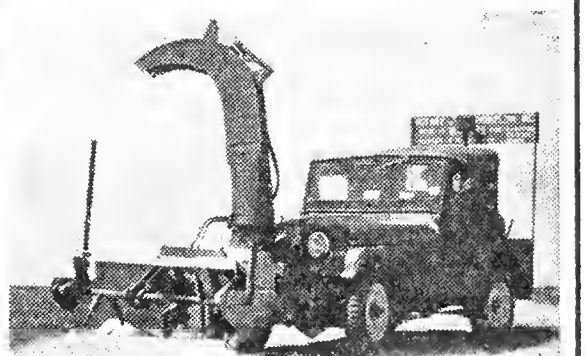
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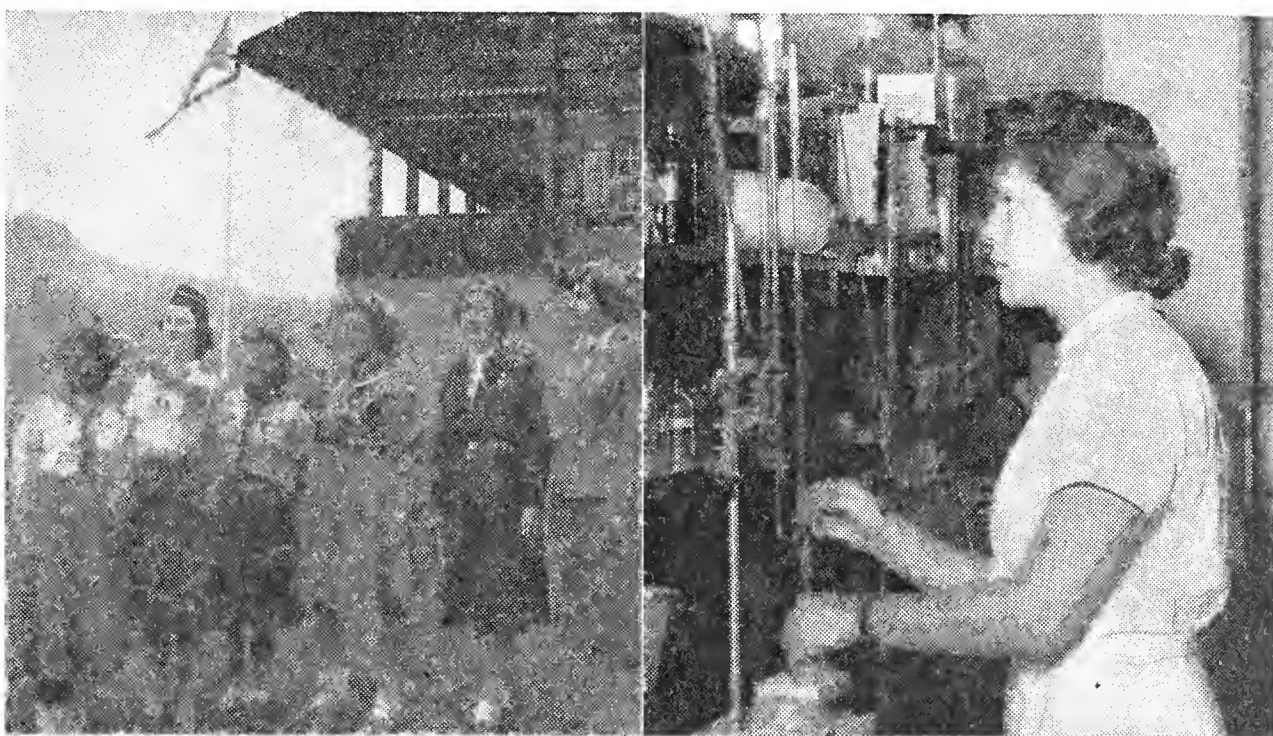
Name of Truck _____

Model _____

Telephone _____

Left:
Girl Scouts from all over the world gather each summer at Our Chalet in A b e l b o d e n, Switzerland. Catherine Seeley, Keuka College student from Ithaca, N. Y., (second from left) recently spent a summer at Our Chalet under the KWES program. As a staff member, one of her responsibilities was to guide the many visitors.

Right:
Lois Schrade, Keuka student from Walden, N. Y., worked as a laboratory assistant at an Auburn, N. Y., hospital during a recent Field Period, thus satisfying the community service requirement.



“Field Period” at Keuka

By BARBARA PLOG

Carmelita Schepsis, freshman from Utica, N. Y., spent her first Field Period serving as an assistant to the teacher at one of the elementary schools in her home town.



I AM A SENIOR at Keuka College, a 4-year liberal arts school for women, located on Keuka Lake in the Finger Lakes region of New York State. In the fall of 1942, Keuka started a program called “Field Period.” One of the aims of this program was to make Keuka graduates more aware of their responsibilities as citizens by recognizing that good citizenship means not only an interest in self, but also a concern for the welfare of the entire community — its people and institutions.

The Keuka administration and faculty members realized that college women must move into the main current of life and test textbook theories against actual situations. Thus, under the Field Period program, all students are required to spend at least five weeks each year in supervised work and study off the college campus.

Field Period work is usually done from mid-November into December, and all classes on campus are suspended for the five weeks. Keuka students may also receive Field Period credit for approved summer work. The girls are supervised on their jobs by work counselors and are usually visited by a Keuka College faculty member during the period. Job placements are arranged through the Director of Field Period, Miss Edith L. Estey.

Types of Experience

Four types of experience are required. The freshman spends her Field Period in a “community service” project. Sophomores are given a “cultural experience” opportunity, while juniors and seniors work in areas relating to their vocational interests.

The idea behind the community service project is that by working in a school, hospital, or other community agency, the student can study its problems and functions, and gain a practical orientation to the duties of responsible citizenship. Louise Norton, a freshman from Greenwich, N. Y., has been a 4-H'er for nine years, and was glad to work in the County 4-H Office at Ft. Edwards, N. Y., during Field Period last fall. Writing news articles, straightening files, and working with a leaders' workshop kept her busy. Since Louise happens to be an English-journalism major at Keuka, she was a real help to the 4-H office staff and also found personal satisfaction in the project.

Another Keuka freshman, Nancy Funk from Smyrna, N. Y., returned to her own school, Sherburne Central, and worked in the library during Field Period.

“I thought I had a good imagination,” Nancy reported, “but until I worked on ‘their’ side of the desk, I didn’t really understand the school librarian or my teachers.”

The sophomore “cultural experience” involves a study in the arts, an investigation of a religious or social issue, or an independent study of a topic that will broaden the student's viewpoint — perhaps bringing her in contact with a cultural background different from her own. This program was developed just last fall, and according to Miss Estey, two sophomores will visit Lexington, Concord, the Old Bell Tower, and other Colonial memorials in New England this summer. By taking pictures and talking with people who care for these historic shrines, the girls hope to relate 1776 with 1963.

By having a job related to her vocational interests, the junior or senior student assumes a role in the regular work-week, and gains confidence and understanding of the requirements in her field. A Binghamton area student, Mary Lou Johnson of Vestal, N. Y., wants to be a teacher. A department store position may seem far removed from the classroom, but there Mary Lou learned valuable lessons. Dealing with a multitude of strangers and learning merchandise appeal were actually good practice for making history appealing to high school students someday soon.

Employers vary too, as Susan Tefft, a junior at Keuka discovered. “The Greenwich Journal,” published by the Tefft Publishing Company in Greenwich, N. Y., placed father and daughter in an employer-employee relationship. When Susan's father became ill, Susan was minus a boss and was responsible for printing the town's weekly paper. Mr. Tefft soon recovered—so did Susan!

Reports from the work supervisor and the faculty member who visits the student where she is employed, plus the student's own eval-

uation report, are the main factors considered in appraising the success of each girl's Field Period.

In 1954, the original Field Period plan was expanded to include work and travel in foreign countries. This phase of Field Period is known as KWES — Keuka World Emphasis Service. I was a KWES participant last summer and worked at two British placements.

Kilmory Castle, a holiday camp sponsored by the British National Youth Clubs, is located in Lochgilphead, Scotland, about three hours from Glasgow. Teenagers from all over Britain enjoyed hiking and climbing, and used the facilities of this renovated castle. Diane Cole, a Keuka junior from Ithaca, N. Y., and I were the first Americans these Scottish young people had ever met.

Responsible for Recreation

My second placement was at the British Diabetic Association camp for children, located near Crewe, Cheshire County, England. Having had no medical training, I wondered what I could do there. I found I was one of six counselors, responsible for recreation from breakfast to bed-check. Did we help? Well, we were able to make the children laugh, if that is any indication! And after two weeks of regular medical care, they could be sent home in at least satisfactory condition.

Is the Keuka Field Period successful in helping college students see more clearly the responsibilities of citizenship? The fact that the program has survived the test of 20 years and is now an integral part of the Keuka College plan of education reflects how Keuka faculty members feel about the program. But perhaps the best indication of success comes directly from the students.

“At last I felt that I was doing something for somebody else,” is a statement repeated again and again by students evaluating their Field Period activities.

TEENAGE WINNERS!

By
AUGUSTA CHAPMAN
HOME EDITOR

Terry Donald, 17, is the champion gingerbread baker in Cayuga County. He won the Pomona Contest, competing against 12 women Grangers.



NAMES OF Pomona winners in the American Agriculturist-New York State Grange Gingerbread Contest are coming in rapidly now, as counties are holding their competitions and learning who will represent them in the finals, to be held when State Grange meets at Elmira in October. Here are the latest champions:

POMONA WINNERS

COUNTY	GRANGE	WINNER
Broome	Upper Lisle	Mrs. Donald Bailey
Cattaraugus	Elkdale	Mrs. Olivia Niles
Cayuga	Moravia	Terry E. Donald
Clinton	Peru	Mrs. Margaret Stafford
Cortland	Freetown	Mrs. Elwin Lanpher
Delaware	Delhi	Mrs. Robert Northrop
Erie	Collins Center	Mrs. LaVerne Buckley
Franklin	Westville	Mrs. John Ellsworth
Genesee	Oatka Falls	Miss Helen Parmelee
Herkimer	Warren	Mrs. Glen Ostrander
Monroe	Mendon	Mrs. Minnie Harloff
Ontario	Clifton Sprgs.	Mrs. Clinton S. Smith
Orange-Rockland	Otisville	Mrs. Anne Poshadel
Orleans	Gaines	Mrs. Earl Prestly
Oswego	West Monroe	Mrs. Hilda Foster
Rensselaer	Melrose	Mrs. Marion Cross
Saratoga	Benis Heights	Mrs. Gayle Graves
Seneca	Interlaken	Mrs. Elsie Ward
St. Lawrence	Crary Mills	Miss Barbara Mason
Suffolk	Bridgehampton	Mrs. Isabel L. Osborn
Sullivan	Liberty	Mrs. Florence Bonnell
Tioga	Halsey Valley	Mrs. Helvi Vaananen
Washington	Bottskill	Mrs. Philip Tefft
Wyoming	Varysburg	Mrs. Alvin Kriger
Yates	Penn Yan	Mrs. Carl N. Fox

Adding interest to the contest, we have two repeat winners from last year. Mrs. LaVerne Buckley from Erie County won second prize in the State Apple Pie Contest, and Mrs. Earl Prestly of Orleans County won their Pomona Contest. Also there are three male winners to date, and one of the "men" is 17-year-old Terry Donald from Cayuga County.

In telling me about that contest, Mrs. Rosamond Bush, Service and Hospitality Chairman, said, "Terry is a sixth degree member and assistant steward of his Grange. He is



MISS H. PARMELEE
Genesee County



MRS. M. HARLOFF
Monroe County



MRS. C. SMITH
Ontario County



MRS. H. FOSTER
Oswego County



MRS. G. GRAVES
Saratoga County



MISS B. MASON
St. Lawrence County

also Regional Grange Prince, a member of the Congregational Church, Star Scout, Junior Assistant Scoutmaster, and will represent the Grange at the Cayuga County Big Six Picnic."

In St. Lawrence County we have another young winner. Barbara Mason, 15, won that Pomona competition over fifteen other contestants.

Mrs. Harlow Jackson, S & H Chairman, wrote me, "Barbara keeps house for her father and brother, as the mother is dead. She lives on a farm near Canton and is a freshman in high school. The cake she sent to Pomona was splendid. She is a good 4-H member too, and it's nice to meet that type of young person these days."

Following are excerpts from letters of several other Service and Hospitality Chairmen:

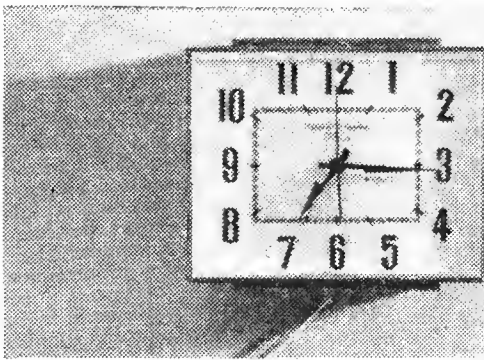
Mrs. Marie Riendeau, Franklin County. "Our winner, Mrs. Ellsworth, has three children and lives on a farm that has been in the family for many years. She is very interested in Grange and 4-H work and takes part in many community projects.

"I believe the baking contest is the most popular one in Franklin County. Eight of our eleven Granges took part, and the members seem to look forward to it."

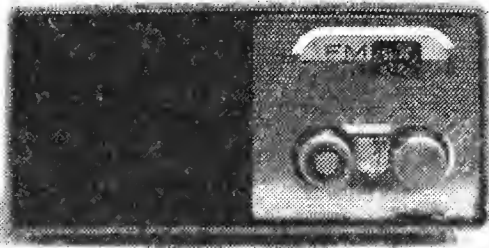
Mrs. Eleanor Elwell, Genesee County. "Helen Parmelee lives on a farm and is a schoolteacher. She has been a member of Oatka Falls Grange for 32 years and has won many prizes in Grange baking and needlework contests."

Mrs. Delmer Yerdon, Herkimer County. "Mrs. Glen Ostrander lives on a dairy and chicken farm and has an egg route. She and her husband celebrated their 25th wedding anniversary in May. She is always ready to bake a cake or do anything she can to help our Grange."

Mrs. Thelma Smodell, Saratoga County. "Gayle Graves is a new bride and decided to enter the contest and use the same recipe her mother used in 1954 to win second prize in the State Contest. It must be a good one, for it was again Pomona winner."



Two Essential Harvesting Tools!!



Your clock and radio are two essential harvesting tools, from the day the first field of early-cut hay is mowed in unpredictable May, through the day the last field of late-maturing corn for grain is picked in blustery December. And that same handy harvest help is at your finger tips for every crop from Apples to Zinnias.

Your best radio guide to good harvesting weather is WEATHER ROUNDUP at 6:25 and 7:15 A.M.; 12:15 and 6:15 P.M., over these stations.

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Binghamton	WKOP-FM	99.1 mc.
Bristol Center-Rochester	WMIV-FM	95.1 mc.
Cherry Valley-Albany	WJIV-FM	101.9 mc.
DeRuyter-Syracuse	WOIV-FM	105.1 mc.
Hornell	WWHG-FM	105.3 mc.
Ithaca-Elmira	WEIV-FM	103.7 mc.
Jamestown	WJTN-FM	93.3 mc.
Niagara Falls-Buffalo	WHLD-FM	98.5 mc.
Olcan	WHDL-FM	95.7 mc.
Wethersfield-Buffalo	WBIV-FM	107.7 mc.

AM STATIONS

Auburn	WMBO	1340 kc.	Olcan	WHDL	1450 kc.
Binghamton	WKOP	1360 kc.	Remsen	WREM	1480 kc.
Boonville	WBRV	900 kc.	Rochester	WROC	1280 kc.
Dunkirk	WDOE	1410 kc.	Salamanca	WGGO	1590 kc.
Elmira	WENY	1230 kc.	Saratoga		
Glens Falls	WSET	1410 kc.	Springs	WSPN	900 kc.
Gloversville	WENT	1340 kc.	Sayre, Pa.	WATS	960 kc.
Hornell	WWHG	1320 kc.	Schenectady	WGY	810 kc.
Ithaca	WTKO	1470 kc.	Syracuse	WHEN	620 kc.
Jamestown	WJTN	1240 kc.	Syracuse	WOLF	1490 kc.
Niagara Falls	WHLD	1270 kc.	Utica	WBVM	1550 kc.
			Walton	WDLA	1270 kc.

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Most amazing new strawberry! NOW READY!—Stern's miracle "EMPIRE"! Enormous producers—each plant averages 6 pints a year. They resist drought—actually thrive in hot dry weather. Magnificent flavor! Big, firm, sweet, extra juicy and red!

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Send Check or Money Order
If you plant these now you'll have berries in Spring 1961

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Send my "PLUM-SIZE" strawberry plants, guaranteed as stated above. (Send check or money order)

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WOMEN'S DIVISION at the Big "E"

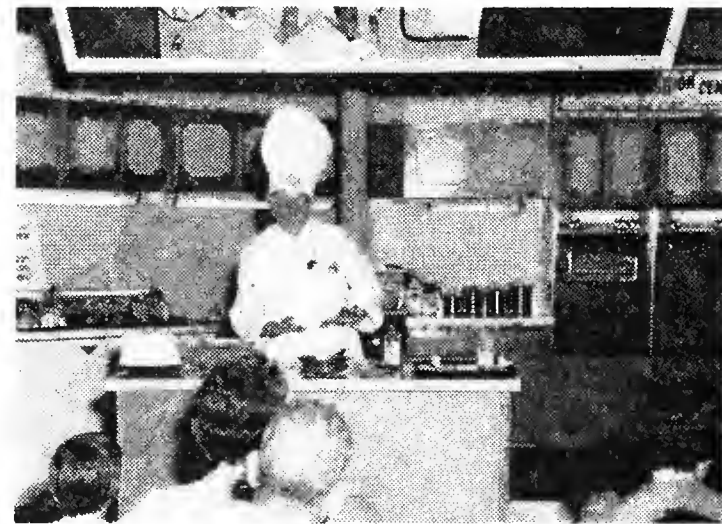
By AUGUSTA CHAPMAN, Home Editor

IF YOU LIKE to keep up with the latest homemaking techniques and learn what other women around the State are doing, you'll want to be sure and visit the Women's Division at the New York State Exposition in Syracuse, August 27 to September 2. All exhibits and demonstrations have been planned with your interests and wishes in mind.

For the first time this year, continuous crafts demonstrations will be held every day in the Home Arts and Hobbies Department, which has been enlarged and moved into the Martha Eddy Annex. You will see

ter. Beginning August 28, "The Merry Pranks of Tyl", a German play, will be presented twice daily. An old favorite, "Pinocchio," including both live and puppet actors, will also be seen each day.

The artistic touch is being continued this year with a major painting and sculpture exhibition in the auditorium and an International Exhibition of Photography in the right mezzanine. All works in the art show are by living New York State artists and have been done during the past two years. Prints included in the Photography Exhibition are



Eddie Doucette, IGA culinary celebrity, explains his famous cooking technique in the Food Demonstration Kitchen in the Women's Building.

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experts demonstrating weaving, quilting, rug hooking, rya rug weaving, crewel work, and jewelry making. In addition, outstanding articles from the Home Arts competition will be displayed along with collections of heirloom china.

Food Demonstrations

In the completely new all-gas Food Demonstration Kitchen, famous foods experts will show you how to create your favorite recipes in a new and exciting way, teach you cooking and baking shortcuts, and offer you new recipes to add variety in your family meals. Different demonstrations on the art of cooking and baking will be given seven times each day. Among the demonstrators will be Paula Peck, author of "The Art of Fine Baking," IGA Culinary Celebrity Eddie Doucette, and R. T. French Company Home Economist Rita Dubois.

Regional cookery will be featured in the kitchen this year, and you'll have a chance to learn the secrets of famous recipes from the Deep South, out West, New England, and other areas of the United States.

If you're planning to redecorate soon, or would just like to see how someone else does it, you won't want to miss visiting the Ford Home in Empire Court. The house, which is now four years old, will be completely refurnished in colonial style.

Women's Day — Wednesday, August 28—will be highlighted by the annual luncheon in the Helen Bull Vandervort wing, with Family Court Judge Madge Taggart of Buffalo the main speaker. The 12th annual Community Service Awards presentations will be made by Mrs. Nelson A. Rockefeller.

Another treat for you ladies, with the men invited, too, of course, will be the free fashion shows on Friday, August 30, in the Helen Bull Vandervort Wing.

To delight both young and old, the Women's Division is again sponsoring the popular ACT Wagon from the Auburn Children's Thea-

by outstanding photographers under forty years of age from all over the world.

Prize-winning articles from Senior Citizens' arts and crafts competitions throughout the State will be shown in the Senior Citizens' Center in the lower right of the building. Also, the Elder Craftsmen Shop of New York City will have a showing of new and unusual handicrafts.

Almost \$9,000 in cash prizes will be awarded in Women's Division contests. Competition is offered in home arts, foods, art and community service.

Two nation-wide competitions, the National Cotton Bag Contest and the National Wool Needlework Contest, are also included in the Home Arts and Hobbies Department. The latter contest is being offered at the New York State Exposition for the first time this year.

Garden Talk

By NENETZIN R. WHITE

LAST MONTH I wrote about perennials that will give you color in the garden all summer. Following are some flowering shrubs you might like to try. They make good backgrounds for the perennials and are lovely by themselves.

Althaea or Rose of Sharon (*Hibiscus syriacus*) is an erect, stately shrub, blooming from July to frost with hollyhock-like blossoms in white, pink, blue, purple, or bicolors. Its ultimate height is 10 feet. This plant does not leaf out until late spring, frequently not before June 10. Consequently, don't be alarmed when planting yours if it is very late budding. There are new double forms of this interesting plant, too.

Buddleia or Butterfly Bush, and sometimes called "Summer Lilac," is a waterfall of pendulant blos-

(Continued on Page 29)

Craft Fair

By Anne Dalrymple



HAND SKILLS, important to our ancestors in supplying their daily needs, are currently enjoying a revival of popularity, and Ithaca, New York, has become a center for this movement. Eight of the last ten York State Craft Fairs have been held here, with this summer's Fair promising to be the best yet.

The 1963 Fair marks the 10th anniversary of the York State craftsmen and will be held at the Ithaca High School from August 6 to 10. Visitors will have the opportunity to see and purchase quality handcrafts from a selection of over 2,000 items made by 75 to 100 exhibitors.

Demonstrations in weaving, ceramics, jewelry making, and woodworking will be featured weekday afternoons from 1:00 to 10:00 p.m. and until 6:00 p.m. on Saturday. Morning workshops in design, weaving and ceramics will be held again this year too. Tuition is charged for the workshops, and it is necessary to pre-register, as classes are limited.

From the extremely practical beginning of the handcraft movement, some of today's crafts have become very sophisticated forms of self-expression and creativity. Many of them are no longer just solutions to daily needs, but are forms of art.

The imaginative wall hangings created by Miss Luella Williams of Ithaca, N. Y., are an example of such a craft. The hangings have no practical use — they are just beautiful and decorative. Miss Williams, who began craft work as a potholder weaver, says she got the idea of using broomcorn and natural materials for weaving from the broom-making demonstration at the Farmers' Museum in Cooperstown, New York.

Imaginative Weaver

An intuitive artist, Miss Williams creates her designs as she weaves. She doesn't plan ahead, so is never sure just what is going to happen. She gathers her own materials — broomcorn, dried grasses and reeds, and small cattails. She also likes to experiment with new materials. When I visited her, she had just completed a lovely hanging in which she used unspun wool along with other natural materials, and she was considering using black unspun wool with goat hair thread for her next project.

Ed Bosworth, former president of the York State Craftsmen, is more concerned with the practical aspect of crafts. He designs custom furniture and accessories. You would enjoy looking at the samples of his work which are exhibited in his country showroom, and you will have a chance to see them if you come to the Craft Fair.

I found Mr. Bosworth working on a 26-inch-high desk for a short lady. Lumber for the project was from an old mahogany bed which she had supplied. The Bosworth home is furnished with lovely pieces designed and made by Mr. Bosworth. Mrs.

(Continued on Page 29)

FOR FALL AND AFTER

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By **AMOS KIRBY**
New Jersey Editor



A Light Grain Crop

C. FRED LORENZO, Warren County Agricultural Agent, predicts another light hay crop for much of New Jersey for the second consecutive year. Only light amounts of rain have fallen in the State since last spring, and with more than an 8-inch deficiency up to July 1 dairymen are expecting a light grain crop, especially in corn,

if the drouth continues. For many areas in New Jersey there has been about one rain a month in contrast to the usual rain every week to ten days.

Dairying — But despite the browning of pastures and the prospect of another light hay supply, there are some brighter signs in the dairy outlook. A special report from the U.S.

Department of Agriculture indicates that dairymen themselves may have solved the over-production problem. In an item entitled "Cowslip," the USDA reports that milk production for 1963 may be much below the 125.9 billion pounds produced last year, and week-by-week reports from the market reporting services show that production continues to slide all through the New Jersey-Pennsylvania-Delaware and Maryland areas.

Decision — Another 180-day extension on the December 5, 1962 emergency milk control law raises hopes of some move on the part of the USDA, or that economic conditions may develop during this six month period.

Prices — Producers in the Garden

State stand to get a price increase. According to David Middleton, manager of the United Milk Producers Cooperative Association, producers marketing under Order 2 are to receive 10 to 20 cents per hundred-weight increase during June, July, August and September. O. H. Hoffman, Jr., manager of the Inter-State Milk Producers, reports that starting July 1 shippers to the Philadelphia-Wilmington markets are to receive up to 60 cents more for Class I milk.

Land Assessment

The land assessment amendment to the New Jersey Constitution has started to move. This is the measure which, if it is approved at the November 5 election, will be the biggest boon to agriculture in a long time. It calls for assessing of farm land at its ability to produce crops instead of on its potential value as an industrial site or a suburban development.

Support — The measure has a lot of support from many important people, including Governor Hughes, Secretary of Agriculture Phillip Alampi, Dean Leland Merrill of the Agricultural College, and others.

The State Grange and the Farm Bureau have been responsible for the project to date. In charge is Francis Raymaley, Alloway, loaned by the American Cyanamid Company, and Ed Gauntt, Jobstown, loaned by the G.L.F. to devote one-half of his time to the project. Gauntt has been named secretary-treasurer of the statewide Citizens' Committee.

Public Market

The New Jersey Public Market Commission, sponsors of the big food distribution center in the Jersey City area, is now out in earnest to line up food distributors to rent space in the market, which is due to open in 1965. Two offices have been opened in New York City. The market is intended to serve the area west of the Hudson River and avoid the congestion of the New York City area.

Here and There

Dean Leland Merrill, Jr. announces a number of mergers of activities for greater efficiency in the Agricultural College. Among them, the Sanitation Department is now the Department of Environmental Science, and it will absorb the Department of Wildlife Conservation, with Dr. Hovhaness Heukelekian as chairman.

Forestry has been combined with Horticulture, Dr. Norman F. Childers, chairman; Seed Analysis has been brought into the Department of Soils and Crops, with Dr. Warren R. Battle in charge; and Dr. John Mixner, chairman of Dairy Science, has been named chairman of a committee to complete the merger of his department with Poultry Science and Animal Husbandry in a Department of Animal Science. Other changes are under way.

Overseas Markets — The shipment of lettuce and cabbage from the Cedarville area to Europe may open up new markets for produce from South Jersey. The crops were loaded in special refrigerated trucks, then run through a vacuum cooler, hauled to New York, and loaded directly on ship for Europe. Similar shipments have been made on other crops from other areas.

REMINDER

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Place your order early for the varieties of seed corn from GLF that you will need for the 1964 planting season. Your GLF Seedsman now offers the widest selection of the best hybrids available for high silage or grain yields.

Now is a good time to compare the results of varieties planted this year. Use this comparison as a guide for selecting next year's varieties.

Be assured of the right varieties for your planting needs, greater yields and improved standability.

Even if your planting requirements change, you are well protected because GLF will work with you to properly adjust your seed corn order.

GLF field tests (substantiated by state college tests) show hybrids from GLF out-yielding competitive varieties of silage corn by 15 to 25 percent.

And these same tests show GLF hybrids out-ranking other varieties by as much as 30 percent in standability. Further protection is assured because all hybrids from GLF are treated against disease and insect damage.

Be sure. Order your seed corn varieties from GLF soon. Your GLF Seedsman will help you make the right selection for highest yields next season. Cooperative GLF Exchange, Inc., Ithaca, N.Y.



Ask your GLF Seedsman about this distinctive 14" x 20" steel sign to mark your exceptional fields where GLF Complete Crop Service was used.

CRAFT FAIR

(Continued from Page 27)

Bosworth, a craftsman in her own right, wove all the upholstery fabric for the living room furniture.

Next, I visited Marion Wesp, a long-time exhibitor at the Bosworths and the craft fairs. As a silversmith, Miss Wesp feels that both usefulness and beauty are important in designing jewelry. She also believes that with the increased competition, good design is becoming more and more important to craftsmen. Miss Wesp enjoys creating jewelry with a particular individual in mind and designing settings to enhance unique stones.

This individuality, which is possible in hand crafted objects, is one reason for their growing popularity. Ed Bosworth suggests that our reaction to mass production gives us an increased appreciation for the hand-made. Many people are becoming interested in creating something with their hands, or in owning hand-made objects.

You are cordially invited to attend the York State Craft Fair this month (no parking problem, as may have been experienced other years), and enjoy its many fascinating exhibits. All of the persons mentioned on this page will have articles on display, along with dozens of other craftsmen.

GARDEN TALK

(Continued from Page 26)

soms in just about a complete color range. Its height is 4 to 6 feet, and it requires well drained soil. This late summer blossoming shrub, like many of its kind, leafs out late in the season. It is often treated like a perennial, since it freezes to the ground some years and has to be cut back to ground level.

Caryopteris or Blue Mist is a charming low-growing shrub (about 2 feet), covered with blue flowers from August until frost. Its foliage is a silvery color, and the soft blue blossoms are most welcome at this time of year. Here again, it often freezes to the ground, and good drainage is imperative for its survival.

Hydrangea P.G. is covered with huge pyramidal clusters of white, star-shaped flowers which change to bronzy pink. It blooms from August till frost and is a large shrub or small flowering tree, extremely hardy and vigorous in almost any location.

Hypericum is a real golden jewel, 2 to 3 feet high, and covered with yellow flowers all summer and into frost. You can find different shades of yellow and extra large blossoms in the newer ones.

Kerria is a larger (4 to 5 feet) yellow flowering shrub, blossoming all summer and having attractive bright green stems. Here, we have another plant that needs careful pruning each spring, since a large

part of the slender twigs winter kill.

Potentilla (Buttercup Shrub) completes the scale of sizes in yellow flowering shrubs, as most varieties of this very round plant are tiny. It is literally covered with yellow or cream colored blossoms throughout the summer and well into the fall.

Rhus Cotinus (Smoke Tree). In July this old fashioned favorite is a mass of airy, smoke-like blossoms which last until late fall. The new purple leaved Smoke Bush is a real wonder to behold. It has a coppery, purple-black foliage (darkening with age), topped with coppery, purple-black smoke plumes.

Spirea Anthony Waterer, commonly called Spirea "AW," blossoms from July till frost, and stands 2 to 3 feet tall. It is a very shapely plant, covered with racemes of pink-to-red

flowers and is, incidentally, an excellent low hedge or border plant.

In the above group, I am thinking of shrubs that will do well in central New York State. There are many other delightful summer-flowering shrubs that can be used in the Long Island, New Jersey, or Boston areas. I have purposely omitted these because they are only on the verge of being hardy in this area, and are darned disappointing after a rough winter, such as ours was last year.

You people in milder climates might like to investigate and try **Callicarpa**, **Hydrangea quercifolia**, **Elsholtzia**, **Tamarix**, and **Vitex**. We have tried them all here at Ithaca, N. Y., with no real success.

Any of the roses, with the exception of the shrub type and a few of the climbers, will give you ample re-

wards all summer. Also, be sure to include some red leaved plants in your color scheme, for they give a wonderful spot of color all summer. In the large trees, Purple Leaved Beech or Crimson King Maple are lovely, and a smaller tree with brilliant red color is the Japanese Red Leaved Maple. Among the shrubs, red leaved Barberry is a delight. All these plants require full sun to retain their brilliant color.

CORRECTION!

In the recipe for Blueberry Pudding in the July issue please note that the amount of $\frac{1}{2}$ cup of milk was omitted from the list of ingredients, although it was included in the instructions for mixing.

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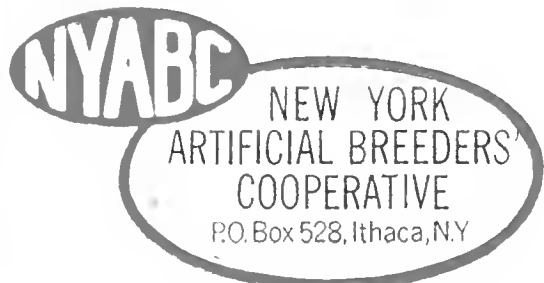
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ED EASTMAN'S PAGE



FARMING IS BIG BUSINESS

BECAUSE the number of farms and farmers is growing rapidly less, it would be easy to conclude that the farm business is declining. Nothing could be further from the truth! Agriculture is by far the biggest business in America, and it's bigger today than it ever was! Take a look at a few facts concerning the business you are in and be proud:

1. Farmers manage **one-half** of all the business in the United States, according to Dr. Karl Brandt, food economist at Stanford University.

2. Total farm investment is \$203 billion. This is equal to the value of all the stocks on the New York Stock Exchange,

3. In Colonial times—and for years after—it took most of the population to raise food and clothing. Even in 1900, the farmer could produce only enough for himself and 8 other people. Now, he grows enough for himself and 25 others.

4. While there are approximately 4 million farmers now in the United States, because of scientific methods and mechanization one-half of these, or 2 million full-time farmers, produce 90 percent of the food.

5. Did you know that farming not only furnishes a job to the farmer himself but the farm business supplies jobs for 4 out of every 10 workers in town?

6. The modern American farmer is a business man. He has an average individual investment of \$33,242, and is a big seller and a big buyer. In 1960, he sold \$33,746,000,000 worth of products. To run his home and his business he spent most of this huge sum, thereby becoming a main supporter of our whole economy.

For example, the farmer buys more steel than is used by the whole automobile industry; he buys more oil than any other industry; he furnishes a market for rubber equivalent to the tires for 6 million automobiles—and so on and on.

From these figures it is easy to see why all business flourishes when the farm business does, and why happiness and prosperity are very dependent upon a successful agriculture.

WHAT WOULD GRANDPA THINK?

In our July issue, I visited about some of the changes that have come about in haying tools in one man's lifetime, but the changes in machinery for grain harvesting are even more amazing.

My grandfather cut all of his grain with a cradle. For thousands of years before him, farmers used

a sickle. When I was young, we still used the cradle some to "cut loose" a field of oats and to cut all of our buckwheat. Then we bound it by hand, making the binders out of straw which, by the way, was quite a trick. If you are under 50, I'll bet you can't do it!

We stood the bound bundles in shocks and later took them to the barn to await the traction engine and separator with the threshing gang which came in the fall.

In the West, the grain, mostly wheat, was usually threshed in the fields. There are men still alive who started with the threshing gangs in the Southwest early in the summer and followed them to the end of the season in the North.

About 1840, the first reaper, invented by Cyrus H. McCormick, was put into practice. Soon after came rapid changes in the harvesting scene, and changes have continued ever since. The sickle and the cradle yielded to the drop reaper; then that marvelous gadget was invented that will tie a knot and bind the grain. Horses gave way to the gasoline engine hauling a modern combine which cut, threshed, and bagged the grain or poured it into the big wagon traveling alongside; the latest is the self-propelled combine.

Yes, poor old Grandpa with his hand skills would surely be confused — and glad probably to go back into the peace and quiet from whence he came — if he were to return now and see our modern methods.

HELP ME PROVE IT

Recently, I heard a man sounding off about how little good women had contributed since they were permitted to vote. He said that woman suffrage had doubled the cost of elections without in any way changing the results.

His statements made me angry, but I found it difficult to answer him with definite proof. So I'm asking the help of women readers of this page.

To the woman who writes the best letter on the subject: **HOW WOMAN'S VOTE HAS IMPROVED THE POLITICAL, ECONOMIC, SOCIAL AND SPIRITUAL LIFE OF THE NATION**, I will send my personal check for \$5.00.

Remember, this is not a question of women's right to vote, for of course they have just as much right as men have. The point is, how have women's votes changed things for the better?

Here are the rules:

1. Letters must have less than 200 words.
2. Letters cannot be answered.
3. The best letter will be published on this page.

4. All letters should reach me before September 1, 1963.

5. Address your letter to: **E. R. Eastman, 515 North Tioga Street, Ithaca, N. Y.**

CHEAP FOOD

In 1947 it took ten minutes of factory labor to buy a quart of milk. It now takes only seven minutes.

In other words, the price of milk to the consumer is 30% less than it was 14 years ago!

While inflation and higher prices have hit everything else, the price of milk has really gone down.

Why organized dairymen don't do more to bring such facts to the consuming public, I will never understand.

EASTMAN'S CHESTNUT

An old friend of this corner contributes the following true story.

My friend was working for a neighbor (whom we'll call Harris) building a barn. A salesman drove into the yard with a team of mules hitched to a democrat wagon. In the back of the wagon was a shiny new stove. The salesman immediately broke into his memorized speech extolling the virtues of the stove.

Barely concealing his impatience

at being interrupted, Harris — whose hearing was perfectly good — put his hand behind his ear and said:

"What say? I'm a little deaf!"

The salesman repeated his speech exactly as before but in a louder voice. Then Harris said:

"I don't want any mules. I wouldn't give a dollar for a carload of them!"

"I'm not selling the mules!" yelled the salesman. "I'm selling the stove!" Then in a loud voice he repeated his sales talk.

"I told you," shouted Harris, "and I'll tell you again, I don't need any mules. I won't buy any mules. They kick and they bite and they're worthless!"

The salesman, starting to repeat his sales talk, stopped abruptly and muttered in a low voice,

"Oh, go to hell!"

Then he gave the mules a slash with his whip. The startled animals jumped, and turned so short that they almost turned the wagon over. Then they galloped out of the yard with the wheels barely missing the fence post and the stove swaying precariously in the back of the wagon.

Busy as he was, Harris sat down on a beam to laugh until his sides ached.

AUGUST MEMORIES

IT WAS A WARM August evening in the long ago. Father, Mother, and we four boys—the whole family—were gathered on the large front porch. Charlie, my oldest brother, was home for a few days vacation from his job in Schenectady. That day he had been helping Father and my two other brothers, Fay and Albert, in the oat harvest, and I had spent a long day working for a neighbor cutting the weeds and brush along the roads that bordered his farm—a disagreeable, perennial August job.

But evening and the time for rest had come. We visited a little, and some of the time we just rested silently in an understanding family togetherness, waiting for the hot rooms upstairs to cool off so we could go to bed.

As the twilight faded and the soft darkness of a summer night descended, lightning bugs blinked and glittered in the yard. Up the road a ways a neighbor's dog complained to the night, probably because he had missed again, for the hundredth time, a smart old woodchuck chattering defiantly back at the dog from his safe retreat in the stone wall.

Across the creek in the nearby night pasture the cows were resting quietly now that it was too dark to graze. From a distant back road we could just hear the slow steps of a horse and the rattle of a buggy, occupied perhaps by a young couple more interested in each other than in going anywhere. Down the creek back of the barn a big bullfrog with his deep "ha-rump," "ha-rump" complained about the state of the union—or more likely the state of his domestic affairs.

I look back on that August evening, and others like it during that same year, with both sad and happy memories, for that was the last summer my family ever was together. Charlie went back to his job and I never saw him again alive. Father died the following winter. Mother moved to town, and Fay (whom many of you will remember as George Duff, the writer), Albert and I married and established homes of our own. Now they are all gone and I am the only one left.

How tragic it is that so few of us are wise enough to appreciate happiness when we have it! Of one thing we can be sure, things never stay for long the way they are. Happiness is a very elusive, fleeting thing, and we must grab it while we can.

August has always been a little on the sad side for me, for it is a going-away time. The summer is on the wane with haying and the grain harvest over; a late summer silence broods over the blue hills and the newly-mown fields; the young people leave for college or jobs and the family begins to break up. That's the way it has to be, the way of life. But young people can ease the sadness by always going home whenever they can, and by making sure the old folks are never forgotten.

Change can always be endured and adjusted to if you leave behind happy memories. Although we may travel to the ends of the earth, we never can escape from our memories. All of us are making them every day—bad memories of unkind words said and mean deeds done, memories of where we showed lack of consideration of our friends and of those we love—or good memories, something said or done every day of our lives to ease the burdens and increase the happiness of those who travel with us the Road of Life.

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During the Dry Season**

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**Dr. Naylor's
LINITE**



**Service
Bureau**

REFUND CHECKS

"You might suggest to your readers that they make immediate use of any refund or credit checks they may receive from mail order companies. I recently 'got took' because I waited too long. I had received a refund check on some returned merchandise, but had kept it, expecting to reorder."

"About a year later, when I decided to cash it, our local bank refused because it was over six months old. I sent it to the company and my letter was returned marked 'Out of Business.' No one had bothered to forward it to the company's successor, and I feel sure a company just doesn't disappear."

Unfortunately, it is possible for a company to disappear, so our subscriber's suggestion is a good one. Sometimes, a mail order concern is only an address at which orders are received and forwarded to other companies. If the operator gets in financial difficulties, he merely walks out and locks the door. He may even start up again in another city under another name.

Also, we often receive notices that mail order companies have become bankrupt, and their assets are seldom great enough to pay customer claims.

On the other hand, however, there are many reliable mail order houses that have been in business for years, and have established reputations for fair dealing and quality merchandise. It pays to deal with the reliable ones.

NO COLLECTION AGENCY

"Could you collect the enclosed bills which have been due since last year?"

This letter was from a lady who runs a small business and these were bills owed by some of her customers. We often receive such requests, which we regretfully refuse because we cannot collect commercial accounts.

Similarly, we make no attempt either to collect claims against individuals (such as payment due for labor or rent), or to enter into disputes between relatives or neighbors.

Primarily, we help to straighten out complaints which a subscriber may have against a commercial concern, usually regarding an order not received or unsatisfactory merchandise on which a refund is due.

We are always glad to hear from our readers and we can help in many ways, so do not hesitate to write whenever you have a question or a problem. If it is something we can handle, we will do our best.

CAN YOU HELP?

"And so we've plowed, the team and I
Through many a sun-cast day and rain.
Ned I called Prime Minister,
Dan I called High Thane,
And the plow was Senechal.
And O the furrows we have plowed
With God for Admiral."

If you remember the rest of this poem, won't you write Dr. W. J. Perkins, R.D. 1, Pleasant Mount, Pa.

Do you have, or know someone who has, any old Beacon Readers? Mrs. Bernard Thomas, 1016 Route 5, Utica 4, N. Y. would like to buy them.



Eight Year Old Crushed Under Tractor

*There isn't anything
I can say to express
my feelings to the
North American Accident
Insurance so because
of all they did for me
when my son Joseph
was killed in a tractor
accident.*

Mrs. Amy Joyner

Mrs. Joyner of Williamstown,
N. Y. received \$1000.00 check
from policy she took out on
her son Joseph just 18 days before
the tragic accident.



OTHER BENEFITS PAID

Russell Rowe, Westerlo, N. Y.	\$ 164.92	Gertrude Royer, Canandaigua, N. Y.	210.00
Hit by 2x4—cuts & bruises of face		Smashed fingers in press—cut & fractured	
Hugh C. Morehouse, Cuba, N. Y.	250.00	Fingers	
Struck by car—fractured knee		Genevieve Thompson, Winthrop, N. Y.	145.00
Denton L. Burroughs, Little Valley, N. Y.	370.00	Fell—fractured arm	
Knocked down by cow, injured knee		Borghild Hagen, Howes Cave, N. Y.	388.55
Ralph Tucker, Auburn, N. Y.	246.00	Fell down cellar stairs—fractured arm	
Fell from elevator shaft—fractured back		& cut forehead	
Harold Pickup, Cherry Creek, N. Y.	302.00	Joseph Kocourek, Cayuta, N. Y.	100.00
Cow fell on foot—fractured bone in foot		Jumped off dozer—fractured foot & ankle	
Bertha W. Banfield, Van Etten, N. Y.	577.39	Asel Tracey, Rexville, N. Y.	284.18
Fell—fractured jaw		Saw kicked back—cut face, finger	
Lillian Kuhn, New Berlin, N. Y.	198.90	Vena M. Buckingham, Narrowsburg, N.Y.	709.69
Fell—fractured leg		Turned ankle & slipped—fractured back	
Edgar K. Bombard, Ellensburg Ctr., N.Y.	134.28	Harold L. Monell, Owego, N. Y.	429.39
Kicked by cow—fractured leg		Slipped carrying bag of feed—internal injuries	
Kenneth Kna, Marathon, N. Y.	607.28	Ruth W. Dedrick, Dryden, N. Y.	320.35
Slipped—internal injuries		Fell downstairs—fractured leg, heel & ribs	
William Stilson, Unadilla, N. Y.	237.80	Donald Reid, Argyle, N. Y.	263.00
Kicked by cow—fractured hand		Hit by power take-off shaft—fractured knee	
Helen Baier, Hancock, N. Y.	439.65	Richard Crandall, Granville, N. Y.	100.00
Auto accident—fractured chest, cuts & bruises		Kicked by cow—bruised & fractured hand	
Herman Museato, Brant, N. Y.	531.14	Alta Fox, Newark, N. Y.	1325.00
Slipped—internal injuries		Fell—fractured knee	
Marion A. Avery, N. Bangor, N. Y.	870.16	Daisy Dunkley, Perry, N. Y.	373.86
Caught finger in grinder—lost middle finger		Slipped on side walk—fractured ankle	
Kurt M. Hess, Johnstown, N. Y.	185.72	Harold J. Bill, Penn Yan, N. Y.	291.00
Injured foot by cow stepping on it		Jolted driving tractor—back injury	
Harold L. Loveland, Alexander, N. Y.	105.00	Henry Wood, Middlebury Center, Pa.	544.29
Hit in face by jack—cuts & bruises		Pulled by bull—bruised neck, chest,	
of face, broke teeth		fractured ribs	
Lydia Pierce, New Baltimore, N. Y.	141.43	Ernest Orcutt, Westfield, Pa.	262.48
Auto accident—cut lip, injured shoulder,		Iron tongue fell on foot fractured toes	
bruises, cuts		M. Van Veghten, Columbia Cross Rd., Pa.	573.36
Michael H. Thomas, Jr., W. Winfield, N.Y.	170.71	Auto accident—multiple bruises &	
Hit bottom while diving—fractured back		fractured ribs	
Richard Higby, Lowville, N. Y.	622.66	Martin Joseph McKim, Soartanshurg, Pa.	167.14
Slipped in hay mow—fractured knee		Kicked by cow—cuts & injured knee	
Donald Swick, Lima, N. Y.	550.00	Stanley N. Mathews, Cambridge Spas, Pa.	160.00
Auto accident—fractured neck & back		Butted by beifer—fractured ribs, injured chest	
James E. Williams, Rochester, N. Y.	1003.95	Lynn Hopkins, Honesdale, Pa.	192.86
Fell playing ball—fractured ankle with		Fell from back of farm truck—fractured	
complications		ribs, leg	
Charles Nichols, Mumford, N. Y.	1154.28	Fred Decmer, Washington, N. J.	340.00
Floor collapsed & pinned injured—fractured back		Auto accident—broke knee, elbow, concussion	
Elmer Sipfle, Fahius, N. Y.	335.72	Hilda Douma, Newton, N. J.	299.40
Kicked by cow—fractured back		Slipped & fell—fractured ribs, cuts & bruises	
Earl Mathewson, Amsterdam, N. Y.	410.00	Michael Hustak, Crosswicks, N. J.	1557.86
Hit by motor cycle while crossing road—		Cable on elevator broke & fell injured	
broke leg, bruises, cuts		back, heel	
Gertrude P. Pillmore, Westerville, N. Y.	448.15	Michael Rette, Allentown, N. J.	248.36
Auto accident—whiplash injured back, cuts		Auto accident—fractured chest, hand, knee, ribs	
on legs		Ida Luchansky, Jackson, N. J.	453.28
Ward Miles, Watertown, N. Y.	113.05	Fell injured back	
Slipped & fell in barn—internal injuries			

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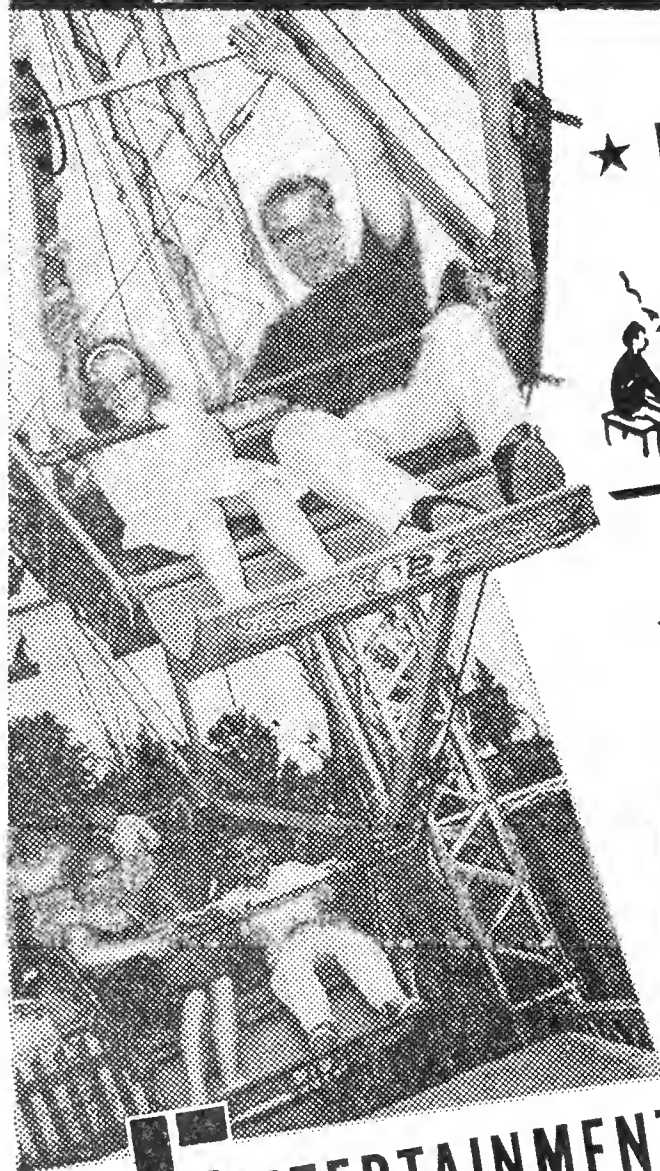
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speed spectacular, supercharged suicide stunts
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18 all-free shows
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bronco-busting, steer-
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Brahma bull riding,
cowboys, cowgirls,
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the most complete horse
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Light Horse Show—Draft
Horses—Horse Pulling
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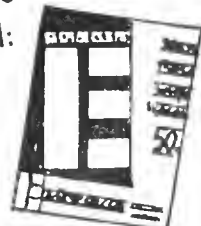
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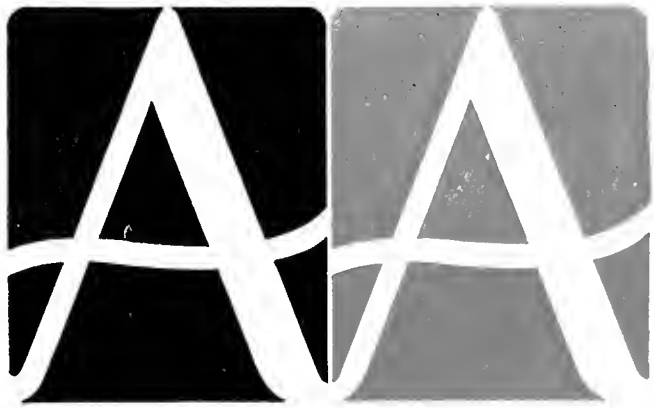
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SEPTEMBER 1963

American Agriculturist



A CONSTRUCTIVE FORCE IN NORTHEASTERN AGRICULTURE



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GET UP
AND GO

THE
BIG
D

119 H.P. BIG ...Big for the man who farms big! The BIG D, exciting to look at... exciting to use. A really Big D in the over 100-horse class. New "top 'o the Big D

Tractor Line.' Acre-shrinkin', man-savin', cost-squeezin', brutiful powerhouse on wheels that takes its hat off to no other. Newly designed...right from scratch. »→

BHL



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Here's what resulted when Allis-Chalmers rewrote the "big tractor book"

"Give us a big tractor," said the men in the field.

"How big?" said the design engineers.

"Big enough to pull a 6, 7, or 8-bottom plow without any strain . . . even big enough to sail through wheat and corn ground with a big 28-foot chisel plow," said the fieldmen. "Build us a Big D tractor that will be at home in the West, the Northwest, the Southwest, the Midwest, Great Plains, Corn Belt, Cotton Belt, Rice Belt . . . wherever a man farms big."

And Allis-Chalmers engineers went to work.

They set quality and performance as top requirements . . . then proceeded to develop a new tractor from the tire tracks up.

It needed a big new 6-cylinder diesel engine, open chamber combustion. A new heavy-duty transmission. A big roomy high-level deck platform. An independent PTO. A big capacity "live" hydraulic system. Also, a heavy-duty retractable swinging drawbar. And then for those who want both there will be a 3-point hitch with Traction Booster (to transfer weight to rear wheels without changing working depth).

New features to top all others: Adjustable wheels (front and rear). All-view instrument panel to move up and down with the steering wheel for restful sitting or leg-stretching stand-up driving. Under 10-foot turning radius. Greatest front and rear axle clearance.

And the engineers kept working. Creating features to match today's ever-growing farms.

Now the new BIG D is a reality. So now's the time to talk to your dealer about the D 21.

It was vast Allis-Chalmers experience in designing farm tractors that provided the capability for the D 21's creation.

That's why we "rewrote the book."

Too big for you?

Don't be too sure. It wasn't designed for carrot patches and peach orchards . . . that's sure. But if you do decide the D 21 is too big for you, remember the same engineering skills perfected the D-10, 12, 15, 17, D-19 and farm crawlers . . . the leadership line . . .

The Big D Tractor Line.

One of them is right for you.

ALLIS-CHALMERS
THE COMPANY WITH GET UP AND GO



Kenneth Glenn Reiss likes to play with these young pheasants, a few of the 10,000 hatched and raised on the farm each year.

2,000 Acre Playground

HOW WOULD you like the job of hatching and raising 10,000 pheasants a year? Add 2,000 mallard ducks and several thousand other game birds like quail, chukar, and turkeys—you have just one of the tasks overseen by Kenneth and Dona Reiss of Cuba, Cattaraugus County, New York.

More than 3,000 hunters bag 15,000 birds a year on the 2,000 acres operated by the Reiss family headquartered in a valley along which runs a gentle stream known as Wolf Run. A dozen stocked ponds bring fishermen to try their luck with rod and reel; picnic grounds combined with an outdoor "zoo" bring people from miles around.

Animals Attract

There is quite a menagerie to attract visitors—including wolves, bears, buffalo, deer, and many others. Speaking of these animals, Ken says, "Anyone in the outdoor recreation business shouldn't overlook the possibilities of a menagerie. He can start out small and gradually work up to more expensive animals."

Ken believes anyone considering outdoor recreational possibilities should plan on starting small and building gradually, the same as with any type of farming. "Don't ever throw out your present source of income until you have a leaning post in another business," he says. "People don't want boulevards in camping areas; they come out here to get away from boulevards."

He followed his own advice some 20 years ago; at that time Ken and Dona operated a poultry business. They moved gradually into outdoor recreation, using some of the skills already developed in farming. For instance, hatching and raising pheasants and other game birds is a little like handling poultry. However, Ken says, "It took us five years to really learn how to grow game birds well—it's not as simple as it looks."

Dona keeps the business books and is very much a part of management. Somehow she also finds time to be one of the top women skeet shooters in New York State—champion with a .410 in 1962 and again in 1963, also winning top honors with a 12 gauge the latter year. Daughter

Kenda (16) and son Kenneth Glenn (7) help, too.

Replying to a question about advice to prospective managers of a similar business, Ken says, "Either you should like people or be a darned good pretender. Meeting the public isn't always easy, but it can be enjoyable." He recommends plenty of liability insurance in any instance where people are invited to enter property and pay to do so—and suggests separate insurance for swimmers. "Don't charge for swimming separately, or you'll run into tough liability and health regulations," he advises. By the way, Ken sometimes serves as a consultant to people contemplating similar ventures.

In addition to the enterprises already mentioned, the Reisses sell registered bird dogs—50 of them in 1962. They also have hillsides covered with Christmas trees, sold 15,000 of them last year. They believe that there will be an ever-increasing opportunity in the Northeast for rural people to sell recreational rights—or property—to urban people seeking outdoor living and privacy. They see real possibilities for millions of acres of land not suitable for conventional agriculture.—G.L.C.

RECREATION HANDBOOK

RESIDENTS of New York State who are interested in converting some land into recreational areas now have available a publication entitled "A Handbook of Public and Private Agencies and Services for Income Producing Outdoor Recreation Enterprises." It is not available for general distribution, but may be consulted by visiting your county agricultural agent, or offices of the Farmers Home Administration or the district offices of the Soil Conservation Service.

Although it does not answer all questions concerning the launching of a recreational enterprise, it does provide very helpful basic information and a list of agencies and organizations that can provide information on specialized subjects. In addition to a list of public organizations, it also includes many private agencies such as the American Camping Association, American Recreation Society, and others.

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— *American Agriculturist*, September, 1963

YOUR GLF DAIRY FEED REPORT



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Right now this new GLF pelleted dairy feed will lower your feed costs, and still keep your herd at capacity production. Why?

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makes the feed highly palatable to your cows, and free flowing out of bulk bins.

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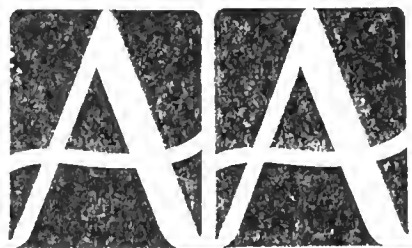
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And, if you are not already enrolled in GLF's Profit Feeding Program, ask for details. This outstanding approach to profitable dairying has now been used on over 5000 farms—85.1%, with DHIA records have already reported net income increases up to \$62 per cow.

Cooperative GLF Exchange, Inc., Ithaca, New York.



GLF DAIRY FEEDS & SERVICES



EDITORIALS

BY GORDON CONKLIN



CURRY WEATHERBY

CURRY WEATHERBY, whose name has been on this page as one of the executives of American Agriculturist for nearly forty years, died July 28th, and Editor Gordon Conklin asked me to pay tribute to Curry here.

How can one show by mere words the respect and the love which come from working in close association with a friend for a lifetime.

Forty-five years ago this summer, I walked into the Cayuga County, New York Farm Bureau office at Auburn to call on Curry Weatherby, the county agricultural agent. I was an assistant county agent leader making an informal business call. During our visit I happened to mention that I had a bad sick headache, whereupon Curry cut our visit short and insisted that I come home with him immediately so that he and his young wife, Winifred, could take care of me.

They made me rest on a couch, gave me aspirin, and later, when I was feeling better, I was treated to the first of many grand meals that I have since eaten in their home. That was the beginning of a close friendship that has lasted all these years between the Weatherbys and the Eastmans—and especially between Curry and me.

Curry left county agent work to become one of the pioneer founders of the G.L.F., leaving there in 1923 to join with me and other associates to build the American Agriculturist into one of the leading farm papers of the United States.

In his work as circulation manager of American Agriculturist, Curry had charge of from 50 to 60 field representatives of the paper. With his leadership ability and with infinite patience he trained our representatives not to sell just another farm paper but instead to sell the services of American Agriculturist, and to make it plain that we are not in business to make money but to help rural people.

Curry knew the Northeast farm country as

some people know their own backyards, and with Winifred often by his side, he was constantly on the move to bring help, cheer, and inspiration to his men and to their wives. Whenever any one of them was in trouble, he just naturally turned to Curry for help—and got it.

As a result, Curry, with the help of his field men built the circulation of American Agriculturist to over 200,000 enthusiastic subscribers.

But when the last countdown comes, no matter how successful a man may be in business, it is his relations with his family, his friends, and his God that really count. I have known few men who had more friends than Curry Weatherby: I think he was the most generous and considerate man I have ever known. He was always bearing gifts, seldom coming to my home or to those of his other friends without bringing some token of his love. When an employee in American Agriculturist had a birthday, there was always a rose from Curry on his or her desk.

But best of all, Curry was first, last, and always a family man. Winifred and his five sons came first. Nothing was too good for them, and their achievements were far more important to him than any of his own. The death of Stephen, killed in the last days of the Second World War, was a blow from which Curry never fully recovered.

Curry, to know you was to love you, and it is hard to realize that you will never again walk into my home or office. We shall miss you more than we have words to tell, but we are comforted by the knowledge that our loss here is the gain of those privileged to know you Somewhere Else.—Ed Eastman

A BOUQUET

THE FARM CREDIT Administration is an example of an organization started with federal funds that has gradually become able to stand on its own feet. As of July 30, 1963, the investment of public funds in the Bank for Cooperatives was reduced to \$84 million from a peak of \$178 million. All but 7 of the 487 local Production Credit Associations are now completely farmer-owned; a \$90 million investment by government has been whittled to \$175,000.

It's heartening to see such an example, a transition that speaks well for the leadership that has brought it about. Would that it could happen more often, both in this country and among the recipients of aid overseas!

CORPORATION FARMING

RECENTLY I HAD the interesting experience of visiting, with County Agricultural Agent Les Rollins, Bel Air Farms in Dutchess County, New York. You've heard about this organization, I am sure, with its eight Harvestore steel silos (each measuring 20' x 50'), its giant herd of milking cows, and the bunker silo with its 2,500 ton capacity. On the day I visited, there were 706 milking cows on the farm and the manager was away on a trip shopping for 200 more. During the month preceding my visit, production was at a level

equivalent to 13,400 pounds of milk per cow.

As I looked over the setup, I mused a bit about the future of agriculture. Most of the money invested here was by no means derived from farming; the owner has a worldwide machine tool business. What if farming were a highly profitable business, I wondered—would this attract large quantities of risk capital that would rapidly transform the nation's agriculture into a production line industry such as this one? Is it an ironic fact that one of the things protecting the predominance of family farms is that expected farm incomes do not attract the risk capital that is constantly looking for an attractive investment?

Somewhere in the back of my mind, a dusty pigeonhole yielded up a recollection that some large corporations owning land in the South and West had done very well indeed in the rice and cotton business, courtesy of Uncle Sam's price support program. What would happen if dairying, for instance, were made a "sure thing" for every producer, and earnings were guaranteed at attractive levels? Even though restrictions on size of business might well be written into legislation attempting such an end, it would probably create a situation where investment capital in big chunks would begin knocking on the doors of the dairy industry—perhaps resulting in many Bel Air Farms.

PUBLIC RELATIONS

THERE IS PLENTY of evidence that many of our city friends take a dim view of farmers. Taking a good hard look at this attitude generally proves that it is literally a "dim view"—dim because it is based on misinformation that clouds and obscures the real facts. That agriculture could stand some better public relations, however, is generally agreed.

What in your experience has been the most successful approach to better understanding between non-farm consumers and the farmers who supply them with food and fiber? Was it a Farm-City Week program, the activities of a county agricultural agent, efforts by a farm cooperative, simply the delivery of a top quality product by farmers, or some other thing that constructively influenced this relationship?

For the best letter on this subject, we'll pay a \$5 first prize, \$3 for second best, and \$1 each for additional ones that are published. We can't acknowledge every letter, but we'll appreciate your ideas. Letters must be postmarked no later than September 20, 1963, to be eligible for consideration.

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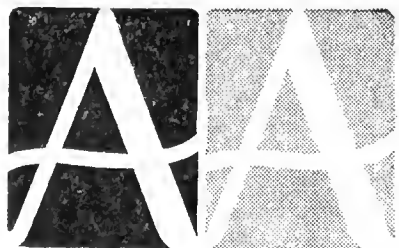
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FARM DOLLAR GUIDE

CLAIMS FOR REFUNDS OF FEDERAL TAX of 4 cents a gallon on gasoline used on farms from July 1, 1962 to June 30, 1963 are now due. Use form 2240, available from county agents, and make claim before September 30, 1963. At same time, New York farmers can claim refund of 6 cents per gallon State gas tax on form F390.6.

RECENT BRUCELLOSIS OUTBREAKS in previously clean herds show this disease still active. Purchase of replacements of unknown health status, or pasturing bred young stock or mature cattle with cattle of unknown status is dangerous.

DAIRY LEADERS ARE WORRIED about proposed regulation to permit hauling charge to producers of up to 15 cents a cwt. on bulk milk. This would cut producer income (at present dealer pays for hauling), would also put squeeze on can producers to convert to bulk tank handling. Some 30,000 dairymen (68 percent) in the New York-New Jersey milk order area are can producers.

USDA REPORTED AS STUDYING LABELING REQUIREMENTS OF INSECTICIDES, and likely to make changes, some probably drastic. Meantime, read and carefully follow directions when you use pesticides. You may want to get a copy of PA-589, "Safe Use of Insecticides," from USDA, Washington, D. C.

NATIONAL POTATO MARKETING ORDER IS "OUT" at least for this year. House Bill HR 904, prohibiting futures trading in potatoes has chance to become law. House Agricultural Committee favored bill by 23 to 8. Senate is considering similar bill introduced by Muskie of Maine.

USDA ESTIMATES NATIONAL APPLE CROP of 116.3 million bushels, 7% below last year and 4% below '57-'61 average. State of Washington expects crop bigger than last year, as does New England (except Rhode Island), Delaware, Maryland and Missouri.

IT IS RUMORED THAT SECRETARY FREEMAN WILL RESIGN and be "kicked upstairs"; also that USDA will not "get tough" with farmers (because of "No" wheat vote) but will increase diversion payments for taking acres out of feed grains and wheat.

The Song of the Lazy Farmer

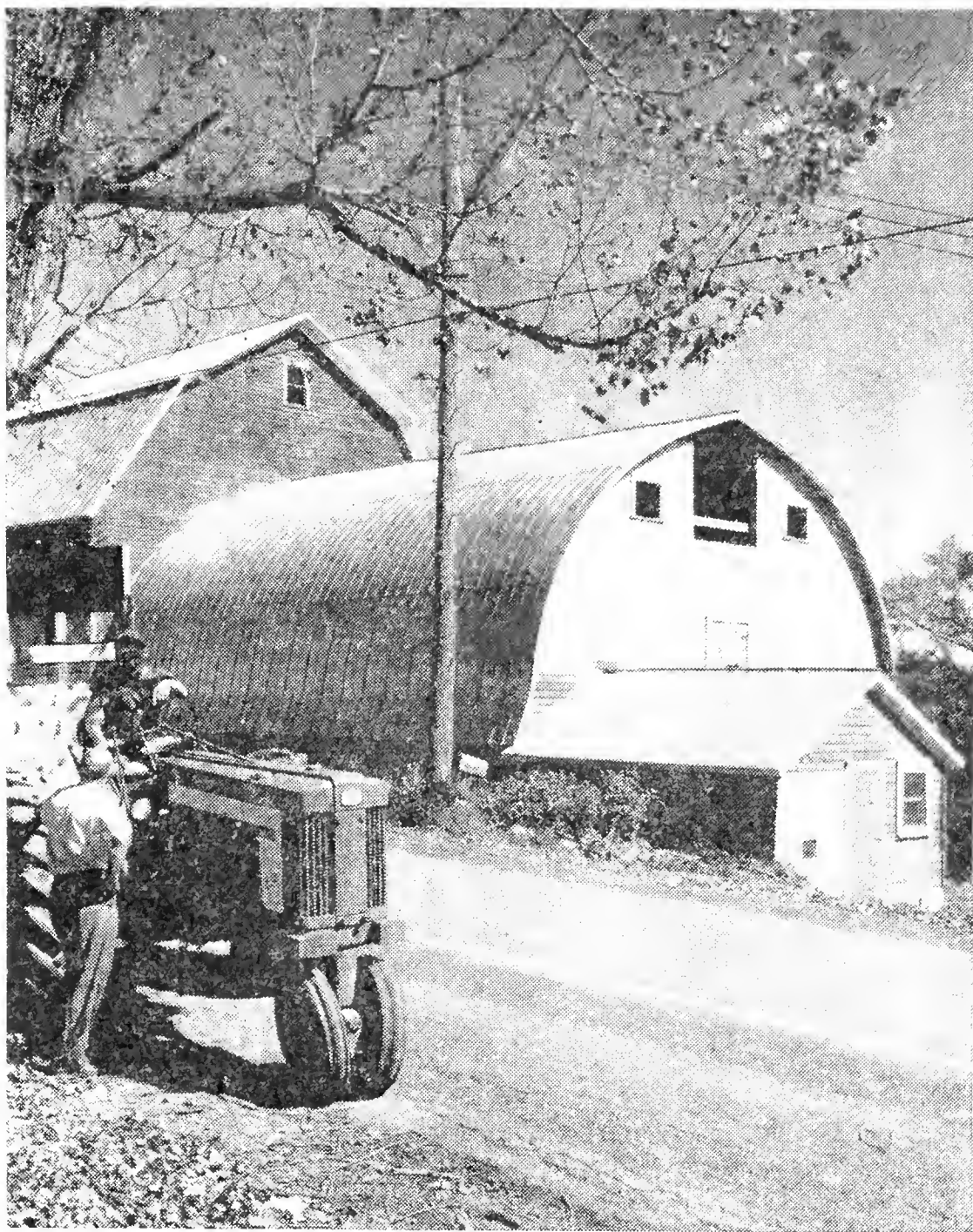


SOME MEN go on for all their lives without much trouble with their wives; at least they say so, though I'd guess they're just like me but don't confess. Don't get me wrong, I do not say my spouse and I fight ev'ry day; I'm smart enough to overlook most faults of someone who can cook as good as she can, so I'm wise enough to keep her baking pies. Nor would I ever say a thing to stop the work she does, by jing; the way she's always in a whirl ain't matched by any modern girl, and I sure wouldn't want to stir up something to discourage her.

But now and then Mirandy Jane can be such an obnoxious pain, especially when my soul gets stung by her non-stop and cutting tongue. Whenever she is tired and cross, then she is never at a loss to wonder how the world could see a good-for-nothing lout like me. It

used to be that I'd talk back when she produced a nasty crack, but now I just ignore her digs, I go and visit with the pigs or maybe fish and leave her there to jabber at my empty chair; it makes her twice as mad as she would be if I sassed back, by gee.

New roof this Fall?



Get the roofing that's strongest
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by **BETHLEHEM**




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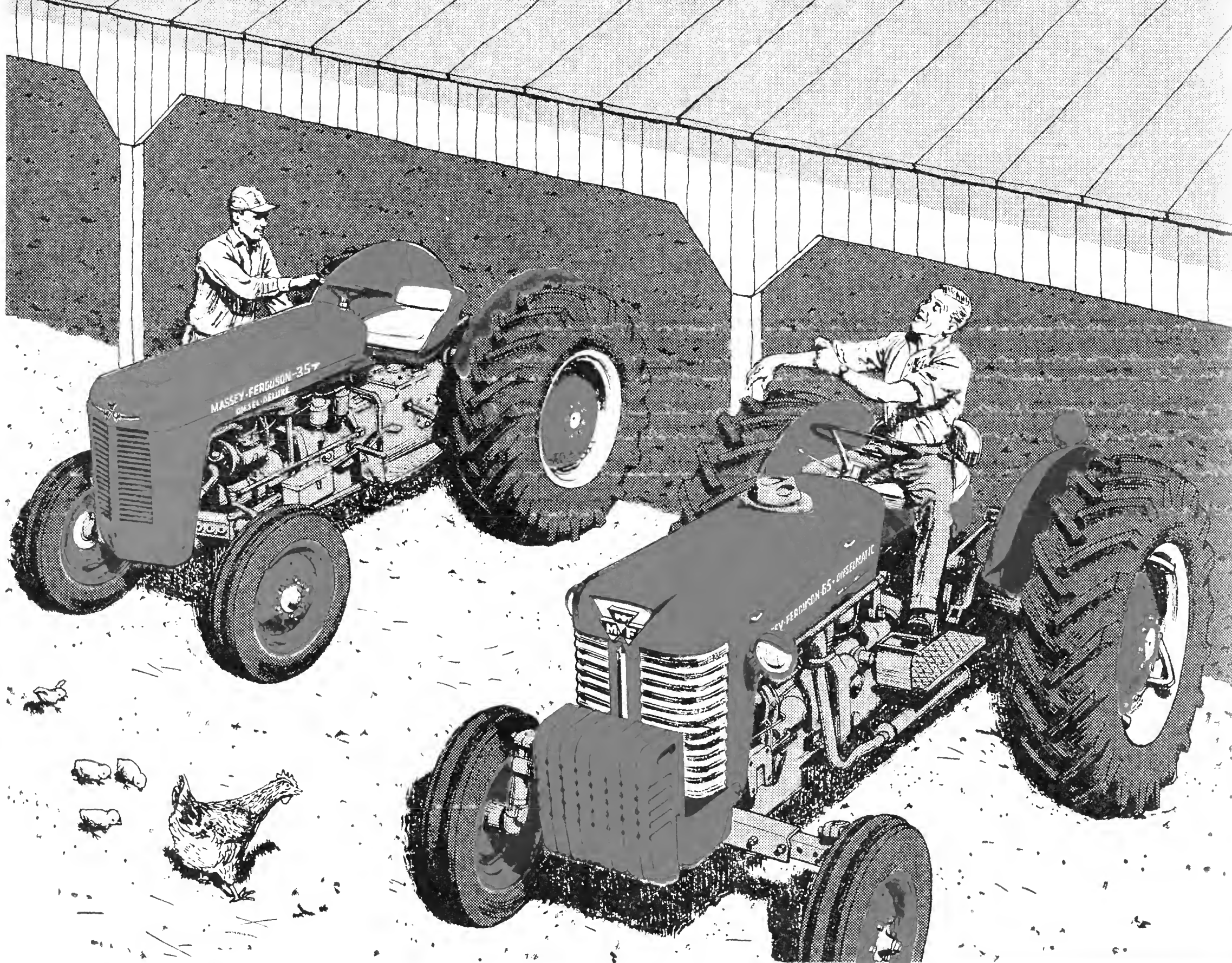


*Galvanized (zinc-coated)
for long, long life

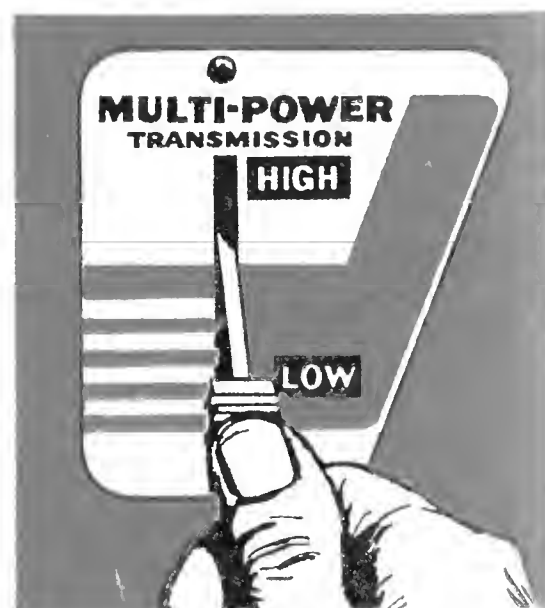




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Harold McEachron (left) visits with county agricultural agent Les Nuffer. Poultry is the major enterprise on this farm, but dairying is also very important.

THERE IS MONEY

IN FARMING

By GORDON CONKLIN



IT'S inspiring to visit with a farmer who says, "There is money in farming!" The comment is even more inspiring when it comes from a man who is obviously on top of management details of a big farm business, yet who takes time to join his family in doing many things together. Add to this the fact that years of good management and hard work, rather than easier paths, are responsible for this highly profitable business—and my natural reaction is to try and find out the family's formula for making a good living and making a good life.

Two Enterprises

Harold McEachron, Salem, Washington County, New York, specializes in two enterprises — hens (42,000) and cows (69). He argues that the combination makes full use of labor the year around, provides uniform income, and offers practical use of equipment. He admits that "If I had 20 cows and 5,000 hens I would enjoy farming more. If I were farming more for enjoyment than with an eye for profits, I would run a one-man business rather than accept the responsibility of a setup this size."

However, a sizable income from a sizable business permits occasional fishing trips to Canada, trips that include Mrs. McEachron and the four children—3 girls aged 14, 13, and 6, and a boy who is 9. They also enjoy together a cottage on a nearby lake; the swimming and fishing conditions are both excellent.

Community activities round out their full, active lives—Presbyterian Church, Farm Bureau, and Extension Service are examples. The beautiful church building owned by the congregation to which the family belongs, by the way, is one that gained fame some time ago because it was erected largely by the members themselves.

Willingness to tackle most any job, especially in erecting buildings, is noticeable in the McEachron family as well as in the general community. Harold has a hobby of planning buildings years in advance so that when the time comes he is ready with plans, materials, and sources of labor and supplies. Constant planning—an endless "skull session"—seems to be a trademark of top management.

In the eastern part of New York State, practically all bulk milk is picked up by over-the-road tankers, rather than small tank trucks. Milk from the McEachron farm will be hauled by this rig directly into Providence, Rhode Island.

But let's give Harold a chance to tell in his own words what he believes to be the foundation stones upon which he has erected a farm business that is a tribute to good management:

1. Replacements—We raise our own, both cows and hens. With the aid of the brooder house equipped with automatic feeders, waterers and heating system we can produce 20-week-old pullets as cheaply as anyone. They are pullets exposed to our farm diseases only, so we do not have to treat someone else's troubles. Our heifers are run loose after a year of age so they require very little labor (feeding every other day and manure spreading once a year). These heifers are raised on a hay diet and they seem to do better than any we can buy.

2. Dickering for bargains sometimes pays it wisely done. We used to do a lot of this in feed purchasing, but in late years we have bought feed by 30-ton car, and pay cost plus cost of doing business.

3. Selling yearling hens is a nerve-racking job, but it pays to stay with it for the one-half cent more than the buyer says he can pay. For if he has to pay, he will. Sell the flock as they run, then there is no arguing about culls.

4. Marketing milk has never been a problem. We ship milk to Federal Dairy at Providence, Rhode Island, in spite of the fact there are several other markets available.

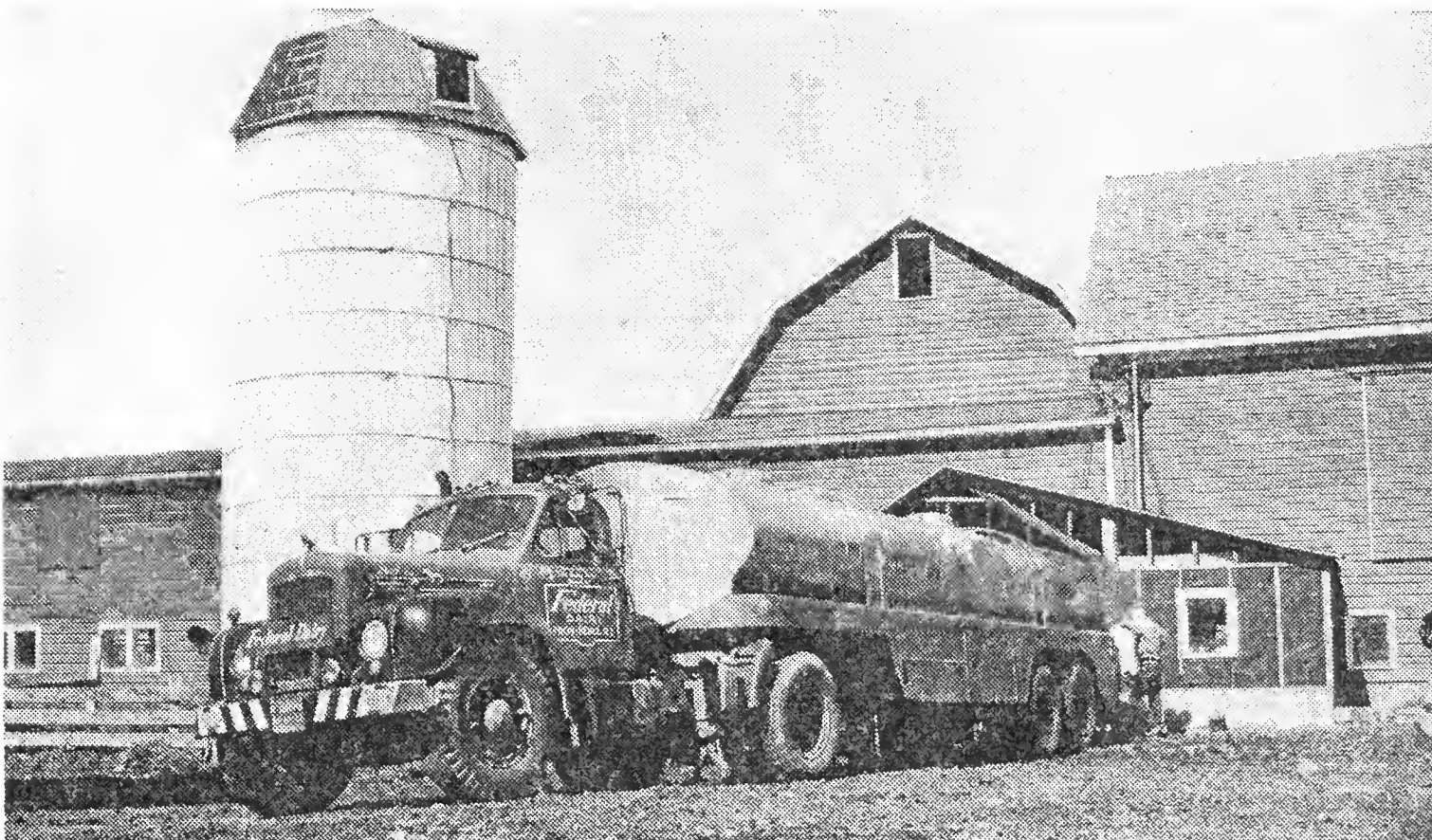
5. Marketing eggs has changed a bit through the years. We have used several markets to wholesale our eggs, always emphasizing quality and pressing for the highest possible paying price. Not long ago we worked out a deal with two buyers to handle our eggs—one firm gets four days a week egg production and the other gets three days.

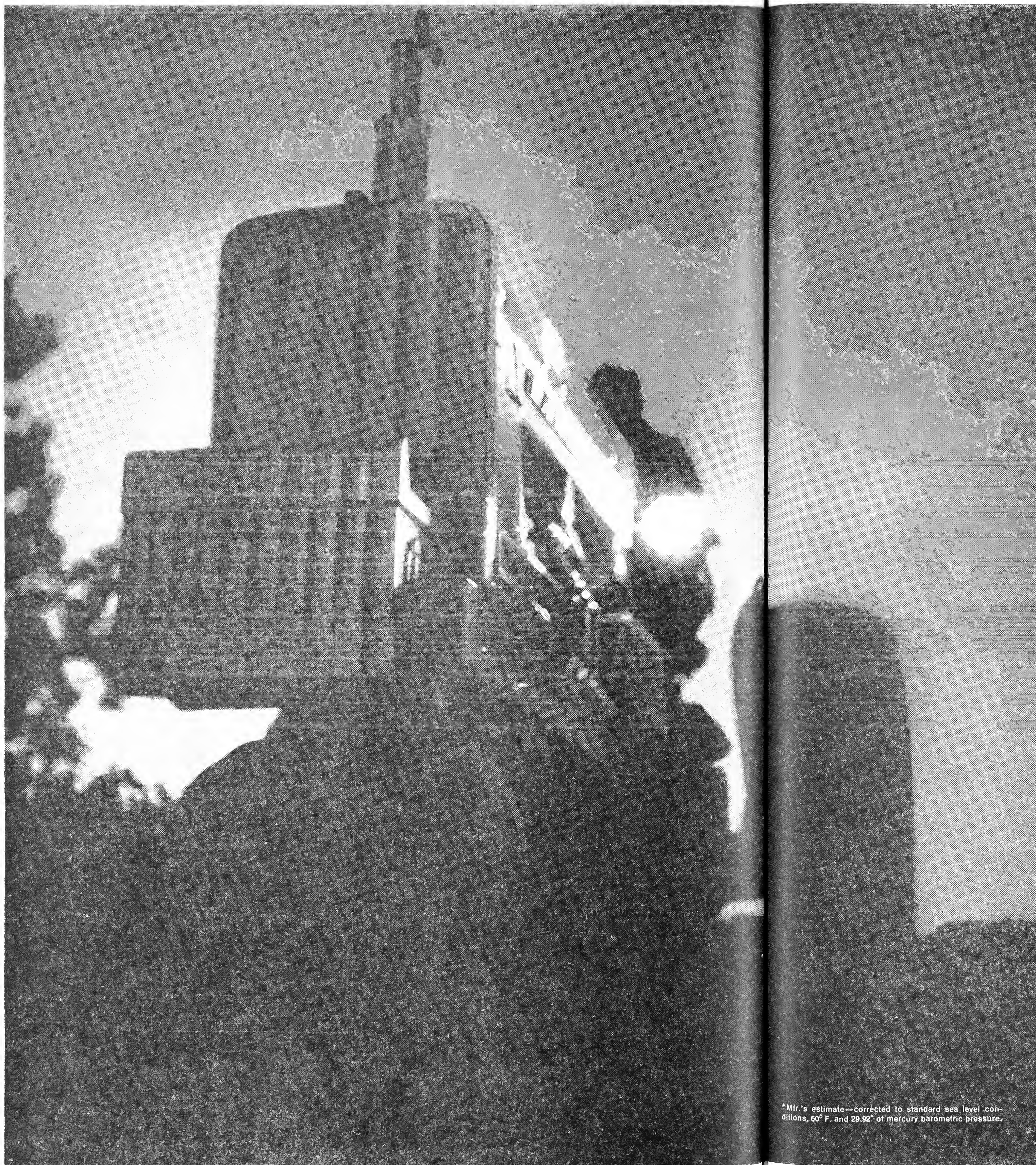
This system offers definite advantages to all concerned. The eggs are packed directly from the nest or tray (whichever it may be) into the crates, and are shipped unwashed and ungraded. The buyer transports, washes and grades the eggs according to his needs and pays us on yield—we assume he is honest! The paying price to us is four and one-half cents above Urner-Barry quotations on jumbos; one-half cent above on extra-large; flat market on large; one cent under Urner-Barry on medium; and three cents under on pullets and peewees. For undergrades, we receive ten cents less than large white.

When I hear of a better market, I will try for an improved paying schedule. This method of marketing eggs has greatly reduced our labor and has encouraged us to keep more hens.

6. Hens—At this time one woman packs eggs produced by 26,000 hens in less than an eight-hour day. Eighteen thousand of these birds are in colony cages and the balance on

(Continued on Page 12)





Here it comes. Total Power. The new IH Total Power 806 rounding out its 10,000th acre.

This was just one of the 24 tractors worked night and day—over 160,000 acres of the fiercest testing ever endured by any new tractors.

Tested not by our engineers, but by farm owners like you. Working round the clock—33,000 hours—to find any bugs and get them out.

We know this is Total Power—more usable power under total command. The new 6-plow 806 has 110* engine horsepower; its brother, the 5-plow 706, has 89*. Both offer you power-shift Torque Amplifier. Power steering. Power-shift independent PTO. Power brakes, self-adjusting. And easy handling hydraulics.

Farm tractors so tough we back them against defects in material or workmanship with a new, longer warranty—one full year or 1500 hours—when used predominantly on your farm. You'll see them at your International Harvester dealer.



The people who bring you the machines that work

*Mfr.'s estimate—corrected to standard sea level conditions, 60° F. and 29.92" of mercury barometric pressure.

BHL



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MONEY IN FARMING

(Continued from Page 9)

slat floor, with eggs brought to the packing room by an egg-gathering belt. One man cares for 9,000 hens on litter in an eight-hour day; another man cares for 6,000 birds in small pens and feeds 10,000 birds in cages, plus checking automatic feeders and waterers in slat-floor building.

7. Chicks—I am the Mother Hen. I take care of the brooder house which is located one-half mile from the henhouses. Our need for pullets has increased to the point where there are chicks in the brooder house all year round. We start broods three times a year, scheduling them to arrive and mature any time but during May and June. These two months are devoted to crops and harvesting hay.

8. Dairy—One man tends to the dairy cows — milking, feeding and other barn chores, plus feeding small calves. We are very proud of this man and pay him the wages he asks, for he earns his full pay!

9. Men—We have two men available for cleaning and other seasonal work. They fill in with hen chores when others take time off. Our men are given vacations and time off to pursue special interests. One man takes his vacation in deer-hunting season; another takes time to fish.

the farm working at anything that might need me; and I work with each of the men trying to set the standard and speed of jobs, trying to dovetail the work to save steps and keep the men loaded both going and coming. If personalities conflict, we make changes in jobs; or, if that is not possible, we do not hesitate to change men for the good of the majority.

12. Reinvest — All the money we earned from farming up to 1959 was reinvested in the family living or farm business. **This we believe in!** In 1959 we used some farm money to buy seven acres of land on a nearby lake. There we built a modern lake-side home which provides scenery and surroundings for good family fun and relaxation.

Then in 1961 we used some of the profits to try our luck on the stock market. It seemed each time we bought the prices went down; so, for comparison we took \$1,000 and bought two heifers at a sale. At the end of the year, the stocks had depreciated less than the heifers. Now we have more inclination to buy stocks than heifers.

13. Visitors—We have always enjoyed having company at our farm. We take pride in showing the different systems of housing hens and our clean, convenient dairy setup. The men also enjoy having their build-

RECORD OF GROWTH

Here's a quick look at how the McEachron farm has grown over the years:

1936 — Harold began operating home farm with parents; they had 160 acres, milked 20 cows and kept 100 hens. Remodeled brooder house and bought a registered bull.

1937 — Built poultry house for 1,200 hens.

1939 — Built poultry house for 2,700 more birds and hired full-time man.

1941 — Bought another 160 acre farm and first tractor.

1942 — Bought another 160 acre farm.

1943 — Built heifer barn, including room for 1,200 hens. Began keeping cost account records with help of specialists from N. Y. State College of Agriculture.

1947 — Egg handling building constructed, including four floors of hens above.

1948 — Hired second full-time man.

1950—Built pole-type structure

50' x 204' for summer laying house. Bought fourth farm, bringing total acreage to 606.

1951—Built the "Big Chief," a 48' x 170' structure four stories high to house 10,000 birds plus grain storage bins.

1953 — Built a brooder house adequate to raise 10,000 pullets to maturity.

1954—Remodeled and enlarged the dairy barn.

1959 — Installed dumping station in dairy barn, and winterized summer laying house to accommodate 8,000 layers the year around.

1960—Built pole barn to house 10,000 birds in colony cages.

1962—Put cages on top floor of "Big Chief," increasing capacity of that floor from 3,000 to 8,200.

1963 — Now have 41,000 laying hens, 12,000 growing pullets, 69 milk cows, 50 plus heifers, 7 full-time employees, and an annual feed bill of \$160,000.

We like to arrange the work so everyone has alternate Sundays off as well as special family days. Our men never run out of work, rain or shine. If we can't make hay, we can always clean henhouses, paint, cut weeds, fix fence, pick stone or haul manure.

10. Manure is somewhat of a problem, especially from cages, because of its smell and condition. We remove it from the building in a dump truck, pile it in some secluded spot, and spread it later when it has dried out to some extent. It is spread on corn and pasture ground.

11. Manager—I spend full time on

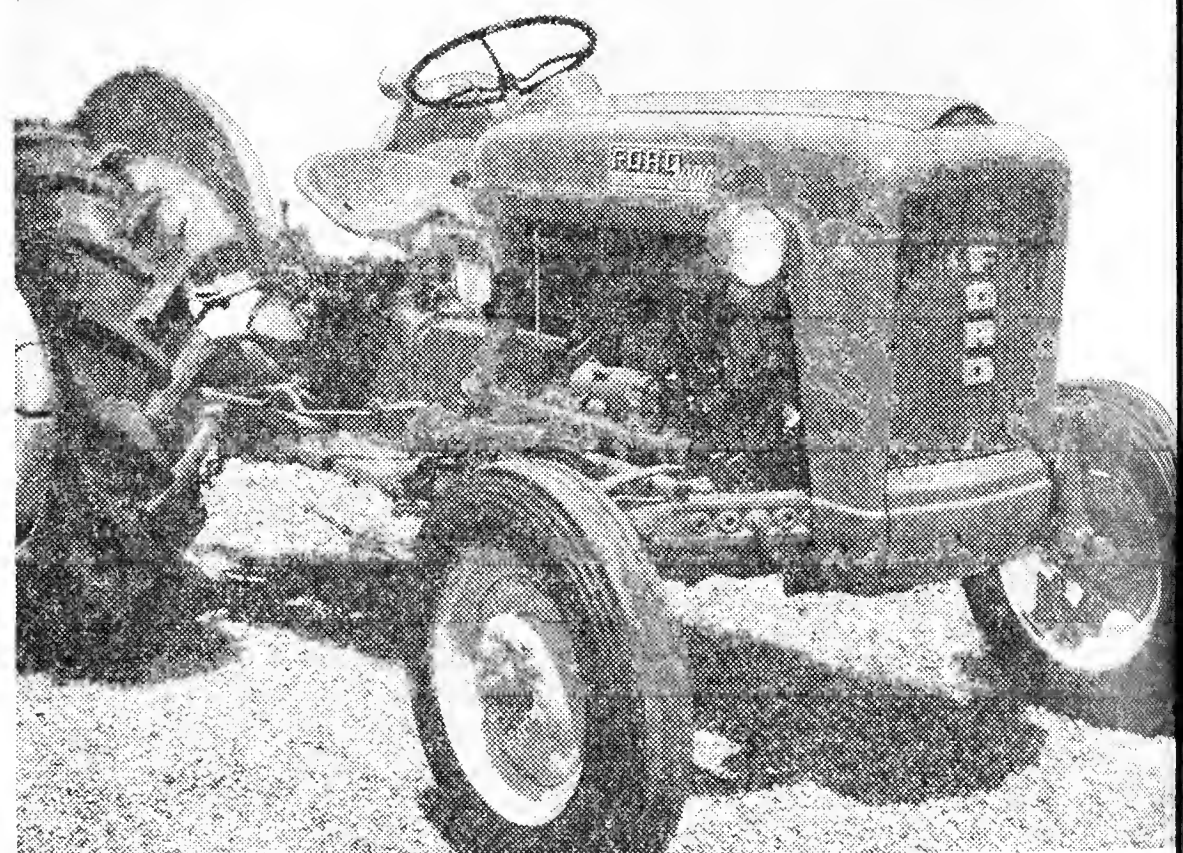
ings inspected, and take special care to have them in good order.

14. Services — To keep informed of the latest trends and developments in agriculture, we subscribe to nearly all the farm magazines published, and attend farm shows such as the State Exposition and winter show at Harrisburg, Pennsylvania. We participate in the Extension dairy, poultry and agronomy schools, the feed company meetings and enjoy visiting with salesmen. We find that talking with progressive farmers on what they are doing and thinking is one of the best sources of information.

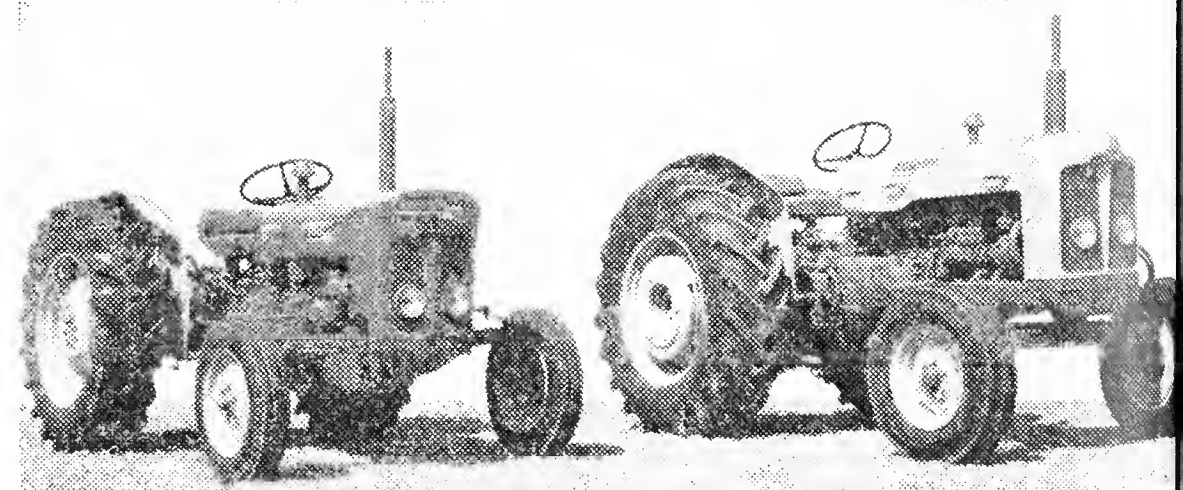
"There's a time



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2-3 Plow 2000—Low cost and versatile for all-round farm usefulness. All purpose, row crop and offset models—gasoline or diesel fuel options.



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5-Plow 6000—Row crop and all purpose, diesel or gasoline. Equipped with advanced features that take the "big ache" out of big-acreage farming.

... Equipped for every job

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Building Better Soils For Bigger Yields

By HUGH COSLINE

ON RECENT visits to northeastern farms I have noted renewed interest in stepping up crop production, often as a prelude to increasing the number of cows. This set me to thinking about the most profitable ways to do this. There was a time in my younger days when I thought I could give the answers, but now I thought it wise to seek some help - so I made a date with Professor Robert Musgrave of the Cornell Agronomy Department. As a result of that visit, some of my ideas were jarred.



Robert Musgrave

For example, "What about lime?" I asked Bob.

"Certainly, if land lacks lime, the first logical step is to add it," was the reply. "But the amount to add is puzzling. A test for lime is important; there's no profit in adding lime that isn't needed. However, many farmers seem to feel guilty because they don't add all the test calls for at once.

"Actually, they may be following the most profitable course by applying 'what they feel they can afford,' gradually bringing the pH to a desirable level and then adding just enough lime per rotation to maintain it.

"There really isn't any one thing a farmer can do to step up yields spectacularly and profitably," continued Professor Musgrave. "It's a question of improving several practices gradually. Take commercial fertilizer. There was a time when the theory was to analyze a crop, figure what plant food was removed

from the soil, and replace it to get a bumper crop. Then somebody tried putting enough fertilizer on a badly-eroded soil to produce a hundred bushel corn crop. The trouble was that the hundred bushel crop didn't materialize."

"Then how can a man decide how much to use?" I asked. "What about the complete soil test?"

"It's useful—but not the final answer," was Bob's reply. "What we are looking for is the most profitable application. In some experiments on the College farm on Mount Pleasant we found less increase than you might expect from what you might call a normal amount of commercial fertilizer based on College recommendations, and practically no additional yield increase when we stepped up that amount by 50 percent.

"Obviously there is no profit in adding fertilizer that doesn't bring a crop increase. When you add readily-available nitrogen it is likely to be leached out of the soil and lost if not used quickly. Available phosphoric acid that isn't taken up by plants changes or reverts to an insoluble or slowly soluble form. And in the case of potash, plants will take up more than they need if it's there. We speak of it as 'luxury use.'"

"It sounds complicated," I commented. "What can a farmer do?"

Recommended Guides

"College recommendations aren't perfect," was Bob's answer, "and every farm presents a special problem. But these recommendations are based on trials, and they serve as a starting place. Then farmers can afford to make some simple trials on their own farms. For example, rather than go all out and put on 50 or 100 percent more fertilizer, try it

on part of one or several fields and check results carefully."

"It's my observation that yields on good farms have been increasing," I said. "What are the causes?"

"Take corn as an example. Chemical weed control has been a big help. Weeds and grass rob the crop of plant food and moisture. Farmers frequently comment on the **labor saving** that comes from chemicals, but **yield** increases may actually be more important. Then there is the improvement in varieties. Modern corn hybrids have the ability to produce ears even at high plant populations. Other grains stand up instead of lodging; forage crops are continually improved for better yields."

"Speaking of corn," I said, "what about cultivation? A farmer told me recently that regardless of chemical weed control, corn must be cultivated for high yields."

"Maybe the man who feels he must cultivate did too much harrowing before he planted; as a result, his soil was compacted. I'm not thinking in terms of 'plow-planting', but it certainly is lost effort to work ground after you have a good seedbed, not to mention the possible drop in yield.

"The type of soil also has an effect. Obviously, a sandy or gravelly soil needs less cultivation just to loosen the soil. On the other hand, corn on a heavy clay soil may benefit when it's cultivated."

"It takes a lot of water to grow a 30 ton crop of silage corn," I said. "Is there anything a man can do short of irrigation? For example, what about farming on the contour to stop runoff?"

"There are two sides to that," was the reply. "In some cases you prevent runoff in the spring, but delay planting because of wetter soils so that you lose more than you gain. It's my feeling that the man who gets corn in early in the Northeast, and does a good job of farming, will get a good crop most years."

Bob's comment reminds me that

the good farmers stand out in a dry year. Take last summer, for instance. I saw a lot of good corn, some yielding up to 30 tons per acre, but I also saw some hardly worth harvesting.

His answer also turned my thoughts backward to the time when neighbors looked askance at the man who wouldn't get his corn land plowed in the fall. The idea was that it worked up better in the spring, but principally that it put a man ahead of his work. Now, with tractors, you can get a lot of corn in the ground in short order when conditions are right.

Use of Manure

Then there's the question of barnyard manure. Fifty years ago, manure was the chief source of added plant food. Sure, we bought a few bags of low-grade fertilizer, often 2-8-10, and sprinkled a little on corn, oats and buckwheat, but the amount was pitifully meagre.

Now some men tell me that handling manure is more bother than it is worth, and that they actually avoid hauling it to distant fields. Poultrymen, in particular, often find that disposal of manure is a problem, especially where many hens are kept on few acres.

But to get back to the question of improving crop yields. Let's see if we can summarize:

(1) Where lime is needed, adding at least some should be the first step.

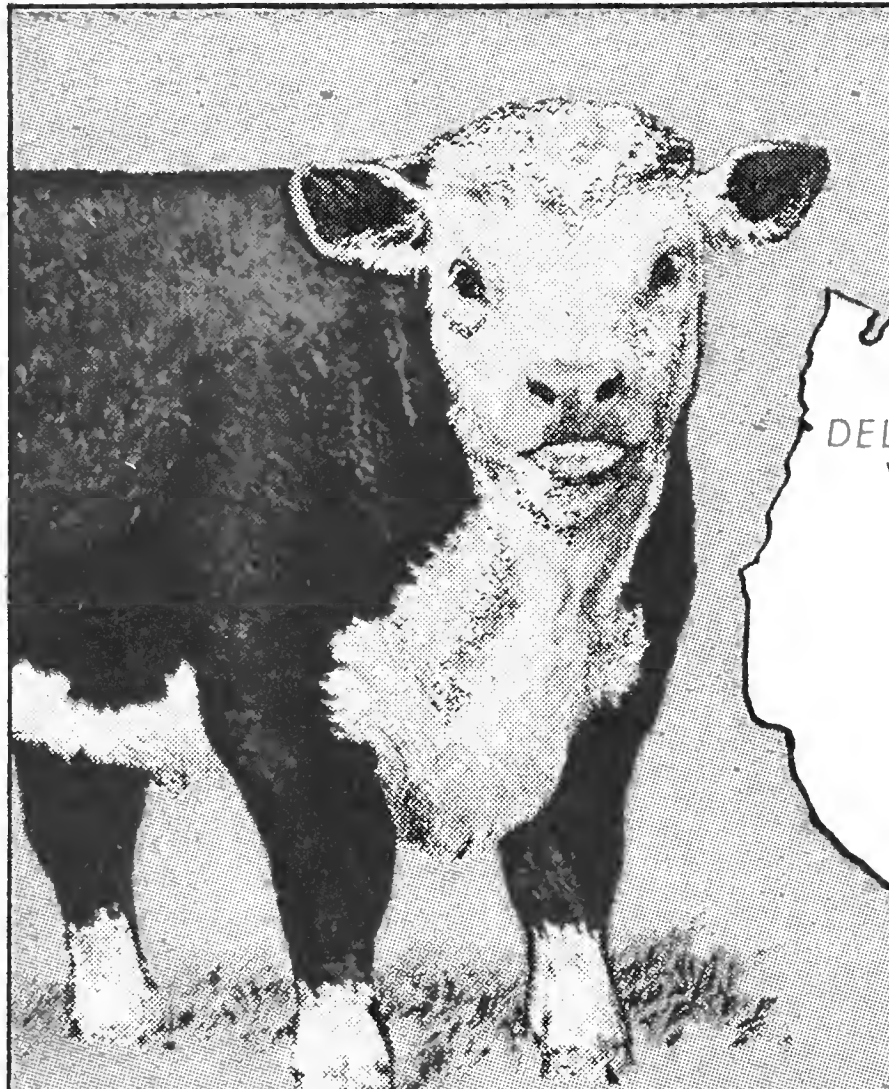
(2) A heavy crop removes more plant food than a small one, but increasing the amount of commercial fertilizer won't **guarantee** bumper crops. Fertilizer is only one of the things in the top yield "package."

(3) A good seedbed is important.

(4) The effect of chemical weed control toward higher yields is often underestimated.

(5) Always use the best adapted varieties.

(6) Better yields are the result of several steps, which **together** constitute better farming.



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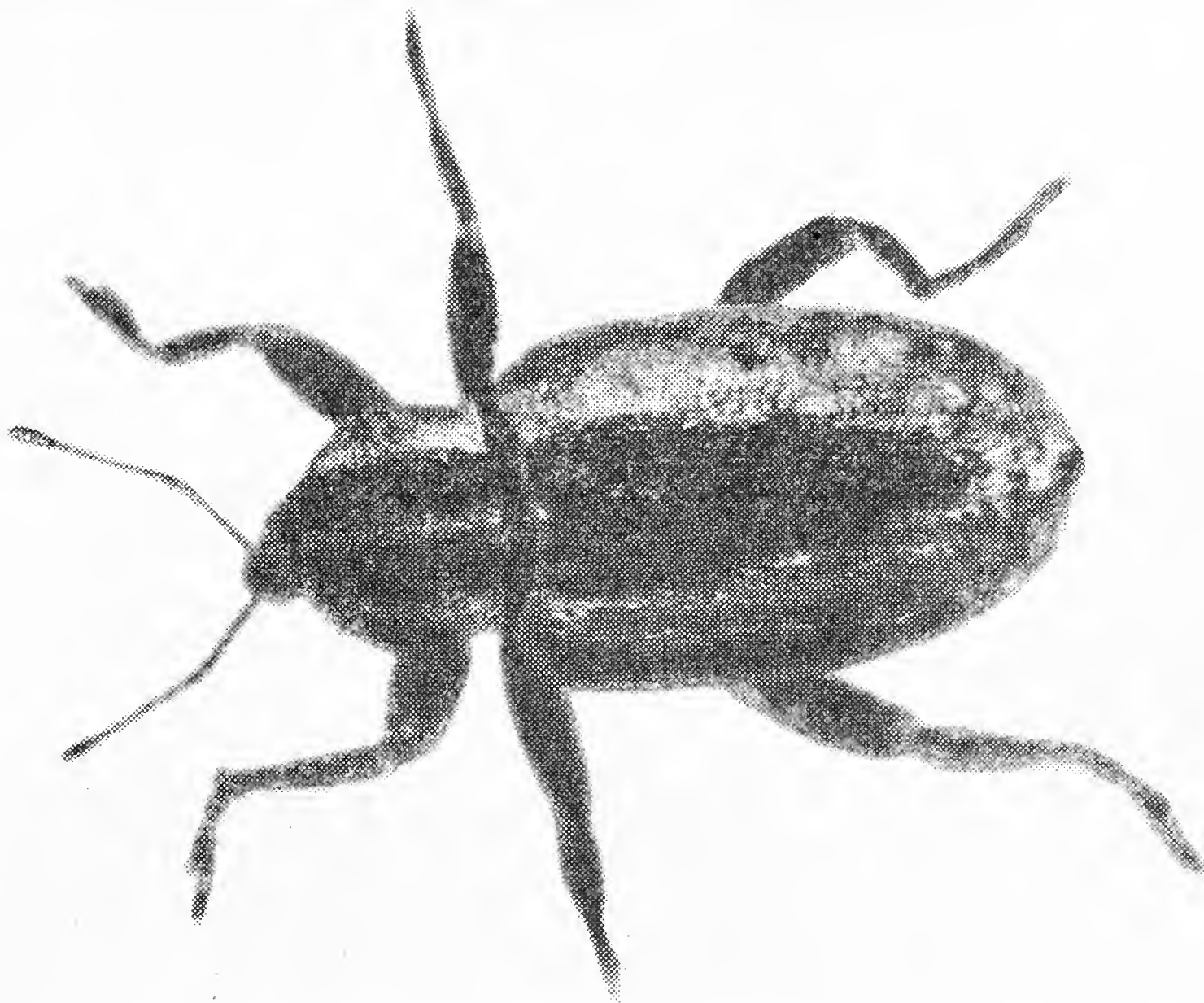
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Adult alfalfa weevil—25 times life size—can do enormous damage. Best control: fall application of dieldrin.

URGENT:

If you act before November 1st, you can control next year's alfalfa weevils and spittlebugs with one application of powerful dieldrin insecticide

IF you apply dieldrin after your last cutting of alfalfa *but before November 1st*, you get 2 benefits no other forage insect control practice can offer:

1. Dieldrin controls *both* alfalfa weevil and spittlebug. Thus, it eliminates the expense of a separate spittlebug spray.
2. Dieldrin lets you save valuable time. You control insects *now* when your work load is low. You make application when your fields are dry—and avoid pulling equipment

over fields made soggy with spring rain.

Weevils most vulnerable now

Right now, adult alfalfa weevils are *active* and vulnerable to insecticides. You kill these weevils—and adult spittlebugs—*before* they hibernate and lay eggs. Infestations that would develop during winter and early spring are controlled *before they get started*.

IMPORTANT: While you have till November 1st to treat your alfalfa, you get best results if you make application during September and early October.

NOTE: Do not graze livestock on treated forage until spring.

Saves you money—Fall application of dieldrin saves you money two ways. 1. You do two jobs with one application—save material, time, labor. 2. You need only 1 pound of actual dieldrin per acre to do the whole job.

Where to get dieldrin

Your dealer has dieldrin in liquids, granules and fertilizer mixes.

Be sure to read and follow label instructions on the package.

Shell Chemical Company, Agricultural Chemicals Division, 2299 Vauxhall Road, Union, New Jersey.

Grower reports on 4 years' results.

"For the fourth year in a row we found fall application of dieldrin gave us nearly perfect control of alfalfa weevil, spittlebug and other pests," reports Dean Snyder, Farm Manager, H. E. Millard Lime & Stone Co., Millarden Farms Division, Annville, Pa. "The fall dieldrin application is the only one we need to make on our 150 acres of alfalfa."



Above: spittlebug nymphs. These insects work under the spittle, drain juices from alfalfa plants. Dieldrin controls spittlebug.



dieldrin

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POULTRY WASTE DISPOSAL

MOST OF OUR 33,000 layers are in cages—three in a 12" x 16" cage, or four in ones measuring 12" x 20". A decision as to which size we prefer can't be made very well until we've had more experience with the latter size.



Larry Lebowitz

Under the rows of stairstep cages are manure pits measuring 9 feet wide, 90 feet long, and 8 inches in depth. The sides are 2x8's on edge; the space between is lined with tar paper (3 layers) and hot tar (4 layers), like a built-up roof. This combination not only covers the bottom of the trough, but comes up to cover the 2x8's. They

were built three years ago and appear to be as good as new. Before constructing them, I boiled a piece of built-up roof for three days to check on its durability.

We clean the "indoor lagoons" when material begins to thicken up—as long as manure is in suspension we don't worry about cleaning. In general, this is every seven weeks in summer—it's better to handle it as a liquid than as a semi-liquid. Experience shows that a 6 to 7 week summer cleaning interval is better than 8 weeks. Because there is less bacterial action in winter, we find that a 4 week cleaning interval is best during the period from December 1 to March 1. We have a chart on the wall that indicates when each cage row should be "unloaded."

Two men—one on each side of the pit—push a board along the "lagoon" to move sludge. It takes them about 10 minutes in this man-

ner to clean out the waste from 9,000 birds. Outlet pipes going to the truck are 6" orangeburg; 8" would be handier.

We use a truck fitted with a 2,000 gallon tank for carrying the liquid to our fields. The spreading swath covers the area between the truck wheel tracks. I believe that 25-30 acres of land would be sufficient for waste disposal in this manner, although 60 acres are presently available.

Add Water

A half inch of water is put in the pit immediately after cleaning in summer; in winter, as much as two inches. After that, we let the birds add the water.

We put extra structural supports in the building to carry added weight—it was designed as a floor operation. With cages, of course, three times as many birds are housed. If our "lagoons" were only 16" deep, we could go four to six months

between cleanings, but the building load factor must be considered. This is also why we didn't consider concrete when building our present pit setup.

If I were building new, I'd make pits of concrete at least three to four feet deep on ground level and plan on cleaning every two or three years—perhaps pits as deep as eight feet would work.

We like this disposal arrangement for a number of reasons. One of the big ones is flexibility—we don't have to clean every day come hell or deep snow. The materials handling job is much simpler than with a litter housing system, and odors haven't been a problem. There are odors, of course, but they would be classed as non-existent by a poultryman and called mild by someone not connected with the poultry business. Fly control is excellent; there isn't any place for flies to breed because manure is under water. — Larry Lebowitz, East Chatham, N. Y.

Personal Farm Experience

The items on this page all come from the firing line of farm production.

SHARES EQUIPMENT

We have found that equipment costs can be kept down by some sharing between neighbors. A neighboring farmer, Claude Dann, and I own a blower in partnership and we often change works. We hire our silage harvested under a setup where we "buy" the services of one man, a tractor, and a chopper. We provide the other tractors and three wagons, plus the blower, and, of course, two men.

Before January 1 every year, we make it a practice to get together and figure out whether either partner owes the other partner something on the basis of time and equipment use. Naturally, any such arrangement is based upon mutual trust and some give and take.



Robert Carpenter

One neighbor rents my tractor and corn planter each spring and pays me rental on a per acre basis. Another neighbor rents my grain drill on the same basis; I hire still another neighbor to do my weed spraying on oats and corn. This works out better for me than owning my own spray rig—it's cheaper and I don't have to try to learn all the techniques and pay tuition to the hard school of experience.

Now and then someone's tractor breaks down and we borrow back and forth to keep things rolling. We think this is not only being neighborly, but it pays off in dollars and cents over the long run. Of course, there are some advantages—as with most anything. I try to keep my equipment pretty well cleaned up and sometimes it takes quite a while to do this. If I'm all alone with my planting and someone rents the equipment, then I have to do the cleaning up and oiling all over again. However, this is a very minor

item compared to all the advantages.

We're always experimenting with equipment and last year I had an experience that has led me to do a bit of testing with corn this year. I planted some of my corn at night last year and alfalfa roots sometimes got caught in the planter drive chains and threw them off. Since I didn't always catch this right away, I planted part of the field twice at a full rate. This gave me a plant population of around 34,000 per acre, and I noticed that I had to shift into low gear with the chopper in that part of the field. Since these corn plants had acceptable ears on them, I concluded that we were getting pretty high TDN production per acre. This year we planted some silage corn this same way on purpose.—Robert Carpenter, Dryden, N. Y.

FORAGE PROGRAM

We have a silo that is 30' x 30', rated at a total capacity of 500 tons. It's built so it can be made higher if we want. An electric motor moves the blower spout back and forth during filling to distribute silage. We think that a big silo gives cheaper storage cost per ton, assuming a herd big enough to prevent spoilage when silage is being fed. Our 80 milkers and 70 head of young stock are adequate to do this.

We put in early grass silage for summer feeding, then fill it up with corn in the fall. One disadvantage is that the silo unloader has to be drawn up out of the way during the filling period and so silage can't handily be taken out for feeding.

We'd prefer to grow alfalfa and corn on our 400 tillable acres, without any nurse crop. We can swap grain corn for a mixed dairy ration and do better than growing oats; this fall we'll experiment with chopped corn stalks for bedding.

This spring we tried three acres

of Narragansett alfalfa and Saratoga bromegrass, seeding without a nurse crop. The land was fall plowed, then harrowed in the spring and seeded with a drill that also applied 250 pounds per acre of 5-20-20. A roller was attached just behind the drill. We sprayed with 4(2,4-DB) to knock out weeds, at a spray material cost of \$4 per acre. It did a pretty good job on broadleaf weeds, especially noticeable where the spray boom swung in a circle at the ends of the field and left some areas unsprayed. — Albert Hoyt, Castleton, New York



Bill Hamilton and son Donald.

VEGETABLE GROWERS

Along with other crops, my son Donald and I grow 200 acres of sweet corn, and 30 acres of peas for canning. I figure that in order to make any money the yield for peas ought to be at least 3,500 pounds per acre. The peas are bought on grade, being tested with tenderometer, with, of course, the more tender peas getting the best price.

After the peas are shelled, I like to get them to the factory just as fast as possible. They are tested at the factory, and the longer they are shelled before testing the more moisture they lose and the lower is the tenderometer reading.

We put on about 600 pounds per acre of a 10-20-20 fertilizer with a

grain drill ahead of sowing peas. We use four or five bushels of seed per acre, depending on the variety, and sow between April 10 and May 10. Varieties are: Wisconsin Early Sweet, which we grow mostly, along with Surprise and Early Perfection, which have larger vines.

With the crops we grow, which include some beans, some alfalfa, and some corn for grain, we cannot follow a definite rotation. Roughly, the rotation is wheat, corn and beans, with peas put in the rotation where they seem to fit. The peas are seeded to alfalfa, which we plan on leaving for two years.

As I have already mentioned, yield is important. You need to put peas on level land, otherwise they won't ripen evenly. Then they need a lot of nitrogen, and of course one of the big factors in yield is weather, something you can do little about.

On sweet corn I figure we need to get five to six tons per acre to make a reasonable profit. We have one advantage in that we own our own picker and trucks. If you hire harvesting done there's a \$6 a ton charge, and we figure that it's a good investment on our 200 acres of sweet corn to have our own equipment. In fact, I think anyone who grows 100 acres of sweet corn can afford to own a picker.—Wm. Hamilton, Perry, N. Y.

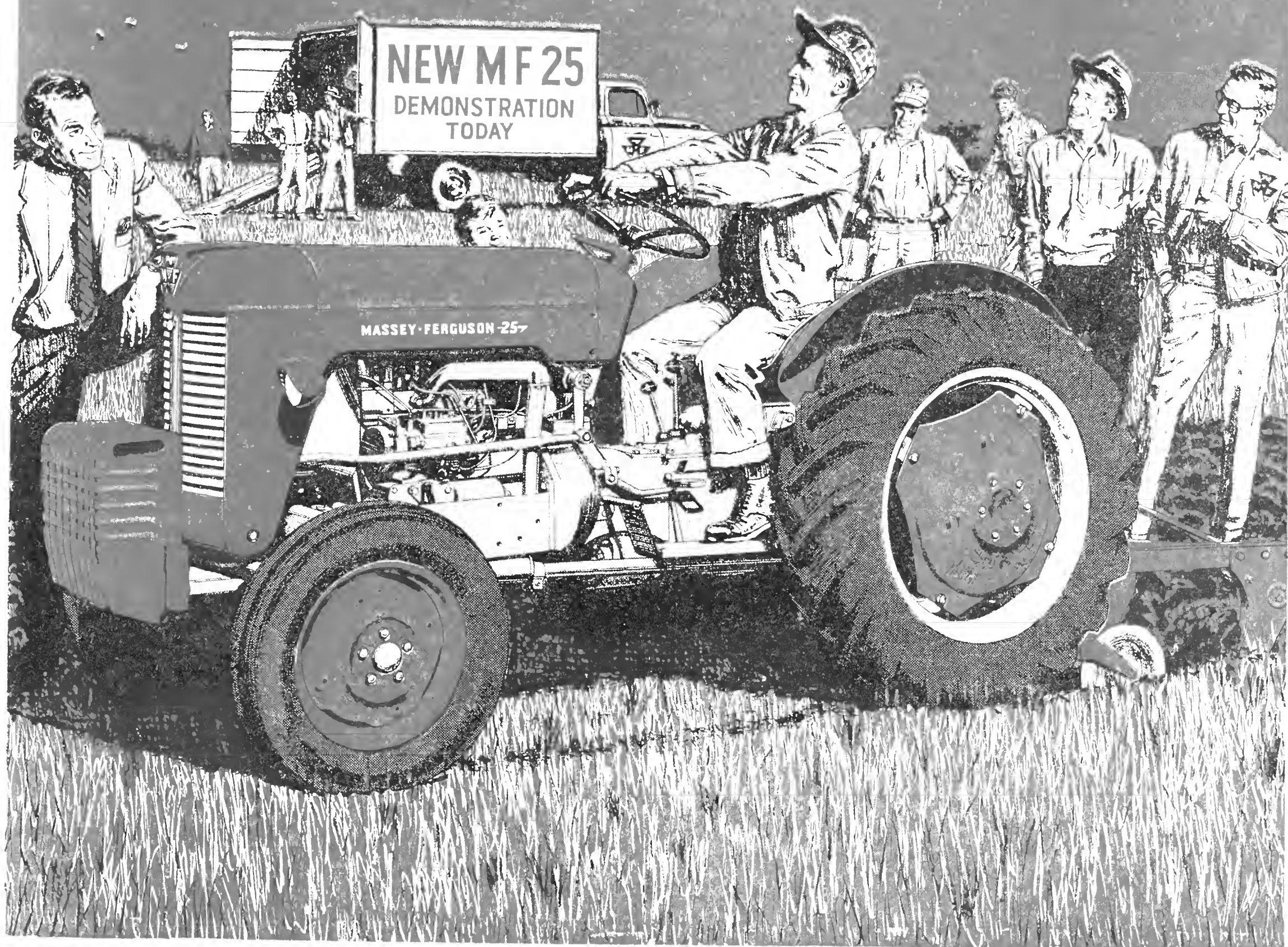
TRENCH SILO

I have found that it's important to level every load of corn silage and to cover it immediately after the last load to lessen spoilage. I don't wait even a day. Spoilage on my trench silos is less than two inches.

I make the trench deep with steep sides, and cover with black polyethylene held down with truck tires. The plastic will last several years if not riddled by squirrels. I put sawdust on top of the tires (to protect the plastic), and dirt around the edges. The dirt freezes and keeps out the air.—Arthur Hodges, Barnardston, Mass.



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The Hawley family has a 750-acre farm operation at Weedsport, New York, that includes dairying and cash crops. As a regular contributor, Harold shares ideas on farm practices, controversial issues, and family living. Here's the latest from Gayway Farm.

WEEDS—1963 STYLE

IT'S EASY to get carried away with the possibilities of chemical weed control and assume that weeds are on their way out. Actually, I'm beginning to think there is a similarity between field crops and orchards. There was a time when pretty good fruit came from non-sprayed trees. Some of the early spray materials were pretty poor or pretty harmful by today's standards. Yet what do we find? Good fruit men armed with better and better materials—and applying them with better equipment—are spraying more and more times per year. I know they are producing good fruit, but my point is—the scab and the moth, etc. have not been eliminated. The problems are still there. So, I think, will the weeds still be a problem for a while yet.

At the risk of sounding like a pessimist, I'm also going on record as saying that I think a cultivator is still going to continue to be pretty good property for another few years.

I'm not about to say that I think weeds have built up a resistance to spray as the flies did to DDT. Nothing would please me more than to hear someone who knows what he is talking about say this: it would explain a lot of things that have me pretty well puzzled.

Last year 2,4-D gave us poor control on weeds in corn, and we explained it away on the basis of dry weather, slow plant growth, etc. This year, with good growing conditions at spraying time, a real kill was to be expected. In most cases this was true, but in each of two fields a portion looked as though it hadn't been sprayed. Lest someone say we probably sprayed a barrel or two of clear water (with no 2,4-D in it) we are sure this didn't happen.

Gained a Toehold

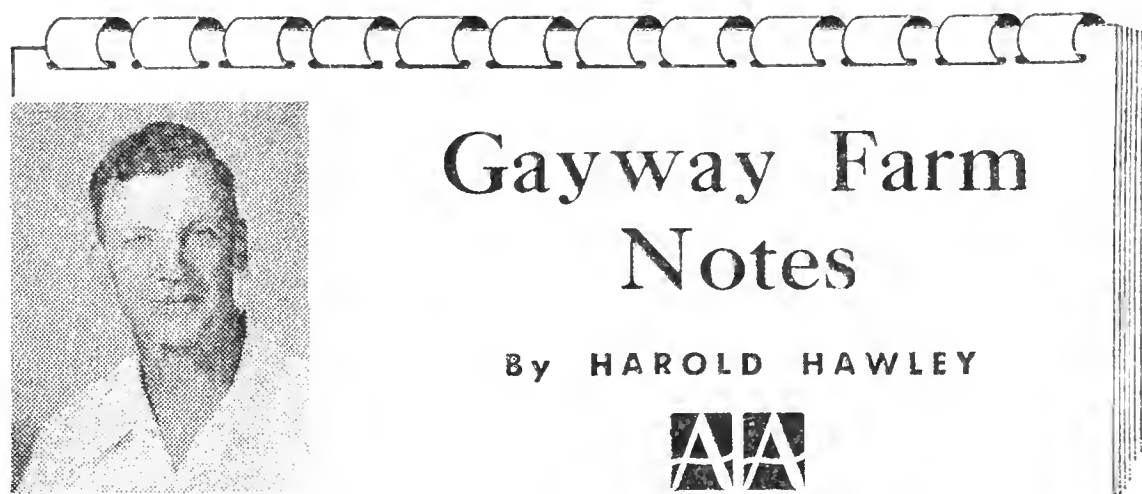
While I'm not concerned about weeds having built up an immunity, it does concern me that dependence on 2,4-D for several years meant that we have let a few non-susceptible weeds gain a toehold.

This year we seemed to have plenty of moisture at planting time for granular Atrazine to be effective. Our 8-inch band on the rows did absolutely nothing. The old cultivator baled us out of what could have been a very bad situation. A check with several neighbors who used Atrazine (wetttable powder) in a solution showed a range of results from a complete kill to a complete bust—why nobody seems to know. I'm certainly going to continue to use chemical weed control, but I sure wish more answers were available and results more predictable. Until then, as noted earlier, a good set of cultivators ready to go will continue to be part of our weed-fighting equipment.

DOWN MEMORY LANE

I've never been one to want to go back to the "good old days" or any part of them. The present and the future are much too good and too challenging to want to change them for the old way. But every now and then something kind of makes you stop and think. Let me take it from the beginning:

The other morning as I stepped from a farm supply store in the village I heard the ring of a hammer on an anvil. Not just any old banging away—but the musical rhythm of a master workman who



Gayway Farm Notes

By HAROLD HAWLEY



"stroked" the anvil with his hammer as he turned the hot iron with the tongs in his other hand. This was a sound from way back. I was across the street and in the long-closed door of the old blacksmith shop almost without realizing it, drawn by this sound from my childhood just as surely as though I were on the end of a lead rope. Our old blacksmith, unable to buy something he needed, had heated up the forge and was about to make the piece—and make it as the master craftsman he was and is.

Most rural towns had their smithies—some better than others—but to me there never was a workman like Jim Kusche. A quick stop at his shop on the way from school was important to me. To get to take one of the teams to be shod, or just any broken thing to be mended, was an event, because this man with the "large and sinewy hands" had a skill and a know-how that fascinated all of us. And, of course, there was something about the flying sparks from white hot metal, the smell of the burning hoof as the hot shoe was held briefly against it, and the good talk of the men in the shop!

Well, sir, the ringing of that hammer on the old anvil surely rang a bell back in my past—a most pleasant recollection brought forward from the good old days.

MASTITIS CONTROL

Obviously, one who knows next to nothing about a subject is leading with his chin when he talks about that subject. However, I get the feeling that I'm not alone in my ignorance about mastitis. With various experts recommending dif-

ferent preventive and curative procedures, and with veterinarians widely split on the merits of trying to eliminate strep agalactiae from the herd, it is obvious we don't yet know all the answers. Even some of the recommended milking procedures seem to be based on a combination of fact, fancy, fear, and ignorance.

There is pretty good research evidence that mastitis isn't spread from cow to cow by the milking machine. Different authorities are convinced that the presence and spread of mastitis is associated with dust and mud in the barnyard, construction of the stalls, feeding and milking practices, and lack of ventilation. However, mastitis still exists in herds where management and environment meet sensible standards.

The last thing I would want to do would be to tell anyone else how to milk, or how to control or

Connecticut, and Pennsylvania with differing conclusions and approaches.

This suggests that we need more basic research until we arrive at the truth. Once there, we can begin to use more scientific methods in our own herds rather than following a lot of procedures out of fear rather than knowledge.

The fact that little new basic research has been done for several years suggests it probably won't be unless we ask for it. I'm for asking for it. How about you?

SOIL BANK OR WEED BANK?

Regardless of one's convictions about Soil Bank and feed grain programs, there are aspects of this idle land that concern everyone. I refer, of course, to the lamentable practice of letting the weeds go to seed. This obviously poses a real threat to the future uses of this land, and it is likewise a hazard and hardship to the neighbors. I am told that clipping is required only if some 17 noxious weeds are present in sufficient amounts to cause the county committee to rule that clipping is necessary. Let's face it—if any one weed is bad it needs control whether or not there are some 16 other noxious weeds also present.

It doesn't seem unreasonable that such land be clipped twice a year (say by July 10 and September 1), with payment to be made after the second clipping. It seems a real shame to build up a reservoir of weed seeds in our soils.

SUNDAYS OFF

Maybe you have heard the story of the immigrants travelling from Illinois to Nebraska by wagon train. Two parties started out and travelled together the first week. When Sunday came one group laid over—the other went on; this they did each Sunday all the way out. The wagons which travelled six days and rested on the seventh reached their new homes first. The day off so refreshed men and teams that they made better time each week than the ones who kept at it day after day.

This has nothing to do with religion, except that God set the example of working six days and resting on the Sabbath.

Regardless of one's convictions about the rightness or wrongness of working on Sunday, it seems to us it is pure folly not to take Sunday off. There are a thousand things one can do to get a break and a change. Our favorite way to spend Sunday in the summer is at the beach of Lake Ontario. A swim, a big picnic, a nap, and another swim, and we are ready to sail into the work again the next day.

Going and coming we always see men and machines working in some fields. All I can say is, they are better men than I if they can go seven days a week. Our family would miss a great deal of pleasure by following such a schedule—picnics with friends, family reunions, rides to see new places, the pleasure of a quiet afternoon with a book, etc., etc.

Someone has said, "Better we work a little, play a little, pray a little, and live a little". We certainly agree.

eliminate mastitis—especially since I don't know, either. However, it seems reasonable to do those things that are in line with research findings and forget some of the others which, so far as I can tell, aren't based on much but hunch.

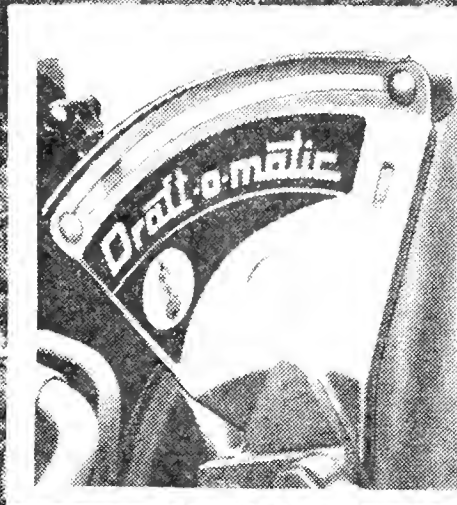
Our Program

In line with this, we milk an infected cow right in her regular order and feed the milk to the calves. We used to dip the machines in an antiseptic solution between cows but have discontinued this, primarily on the grounds that even if we thought the machines did transfer the organisms, the brief dipping wouldn't kill anything anyway.

Over 90 percent of our mastitis in the past months has occurred in just-freshened animals, both old cows and first calf heifers. In no case was an old cow one with previous trouble. One can't blame it on milking equipment or practices when a heifer pops up with trouble on the first milking.

We are trying to be regular about drawing hot water and detergent through the vacuum lines once a week. This keeps the vacuum up and cuts milking time and, we think, helps to keep mastitis in check. Because we do not know how the organism is introduced, or what we do wrong—or what goes wrong with these dry cows and heifers—there isn't much we know to do beyond general cleanliness and good milking procedures.

It is generally acknowledged that here is our most costly dairy disease. The research done to date leaves specialists in New York,



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SEE YOUR CASE DEALER FOR QUALITY GOLD SEAL USED EQUIPMENT

Now Just A Darn Minute!

By John H. Foster

Before you decide there is a pot of gold in the recreation business, be sure to read this good advice.

ALMOST EVERYWHERE you go these days, someone is promoting outdoor recreation as a cure for low farm income! All this talk has got a lot of farmers dreaming about the pot of gold that lies under a picnic table in their woodlot, in their 30 acre swamp that could be a lake, or in their hayfields that lie just right for a golf driving range.

It's not all dreams either. Many farmers have already discovered that an outdoor recreation enterprise on their farm can give them a good added income and may be so successful that recreation becomes

* Department of Agricultural Economics, University of Massachusetts, Amherst, Mass.

their main business. But outdoor recreation is not going to be a money maker for everyone who has a piece of land he can spare. It is going to make money only for the able manager who has the right piece of land and the right amount of capital to invest.

Here are some questions to ask yourself in deciding if outdoor recreation will pay off for you.

1. Do I have a good location?

You can't ship your recreation to market like you can most farm products — your customers must come to your farm. This means that for most kinds of activities you must be fairly close to where your customers live. A recent study in

Massachusetts indicates that if you are more than 15 to 20 miles from a moderate-sized city (say, with a population of 25,000) and are planning to have facilities used only during the day, you will need a very special attraction to get people to come to your place regularly.

An alternative would be to start a campground, organized children's camp, or vacation farm — all of which have overnight facilities to make distance less of a problem. The closer you are to a city and the fewer competing facilities between you and the city, of course, the better is your location. Poor roads and hard to find locations are definite disadvantages.

Some farmers may be far from a city but in or near a popular tourist area and thus be able to attract enough paying customers.

2. Is my land suitable for the facilities I plan?

Each type of facility has its own set of requirements. Some things to think about are sufficient acreage, adequate water supply, good drain-

age, proper slope, attractive surroundings, and the necessary physical features such as a suitable slope for skiing or a suitable place to construct a pond for swimming. A location with much less than ideal characteristics will require more investment and will never be entirely satisfactory.

3. How much capital do I have to invest?

There is plenty of evidence that many successful recreation operations require as much or more capital than a family farm. An operation with insufficient amounts of capital invested is likely to produce more problems and disappointments than dollars.

Remember some of the pen stables for dairy cattle that have been built? Done right, most have worked out very well, but some of those done on a "shoestring" — without adequate paving, for instance — have only compounded dairy housing problems.

The amount required for a recreation enterprise depends, of course, on the type of activities you are planning. For many types of facilities likely to be considered by farmers, investments of \$30,000 to \$50,000 in addition to the land would be typical. Some facilities, such as golf courses and ski slopes, will require much larger amounts.

4. Do I have the right personality to run a recreation enterprise?

To be a successful operator in this business, you must enjoy working with people and be willing to put up with all the little annoyances involved with inviting people onto your property for a fee. This means cheerfully cleaning up their litter, catering to their whims, and being disturbed at all times of the day and night (if you think farmers have long hours, wait until you get involved in recreation).

It also requires being a genial host at all times—even when you discover your picnic bench being used for campfire fuel. Doing these things isn't easy; they will all tax your ability to enjoy people. Your personality and the atmosphere you create will be a major part of your success or failure.

In most cases, you should personally enjoy and be an expert in the type of recreation activities you offer—even though you may not have time to indulge in them yourself as often as you'd like.

5. Can I use my money, time, management ability and land to better advantage in any other way?

For farmers, this question raises the possibility of using these resources to make the farm business more profitable rather than using them on a recreation enterprise. Economists call this "evaluation of alternative opportunities."

Can you more profitably invest this recreation capital in the farm business by enlarging it or improving your stock, equipment or buildings? Do you have extra time to spare from farm work to be used in the recreation enterprise? Will the busy time on the farm conflict with the busy time for the recreation operation — when are the peak labor periods in each? If you feel your management ability is up to running both a farm and a recreation enterprise, should you be using your ability to do a better job of farming rather than spreading yourself over two businesses?

(Continued on Opposite Page)



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Dates to Remember

Sept. 6—Forest Land Use Conference, Ten Eyck Hotel, Albany, N. Y. Registration forms from New York Forest Land Use Conference, 2 W. 15th St., New York 36, N. Y.

Sept. 6 — 14th annual New York "Meat Animal" Show and Sale, Empire Stockyards, Caledonia.

September 7—13th Annual Western New York Fat Stock Show & Sale, Caledonia.

September 14-22 — Eastern States Exposition, West Springfield, Mass.

September 15-23 — New Jersey State Fair, Trenton.

Sept. 19 — Pennsylvania Junior Dairy Show, Harrisburg.

September 26 — Annual Meeting Feed Dealers and Manufacturers

Association, The University of Vermont, Burlington, Vt.

Sept. 30 — Last date for filing application for Federal gas tax refund covering 12 month period ending June 30, 1963.

Oct. 8-10 — Northeastern Poultry Producers Council Exposition and Convention, Harrisburg, Pa.

Oct. 10-11—Pennsylvania Association of Farmer Cooperatives Annual Meeting, State College, Pa.

Oct. 16-17 — Dairymen's League Annual Meeting, Syracuse, N. Y.

Oct. 21-24 — Pennsylvania State Grange Annual Meeting, Erie, Pa.

Oct. 29-31—N.Y. State Grange Annual Meeting, Elmira, N. Y.

Nov. 11-13 — N.Y. Farm Bureau Annual Meeting, Utica.

Nov. 11-15 — Pennsylvania Livestock Exposition, Harrisburg.

JUST A DARN MINUTE!

(Continued from Opposite Page)

There are no guidelines to help you on these questions, but you owe it to yourself to try to answer them.

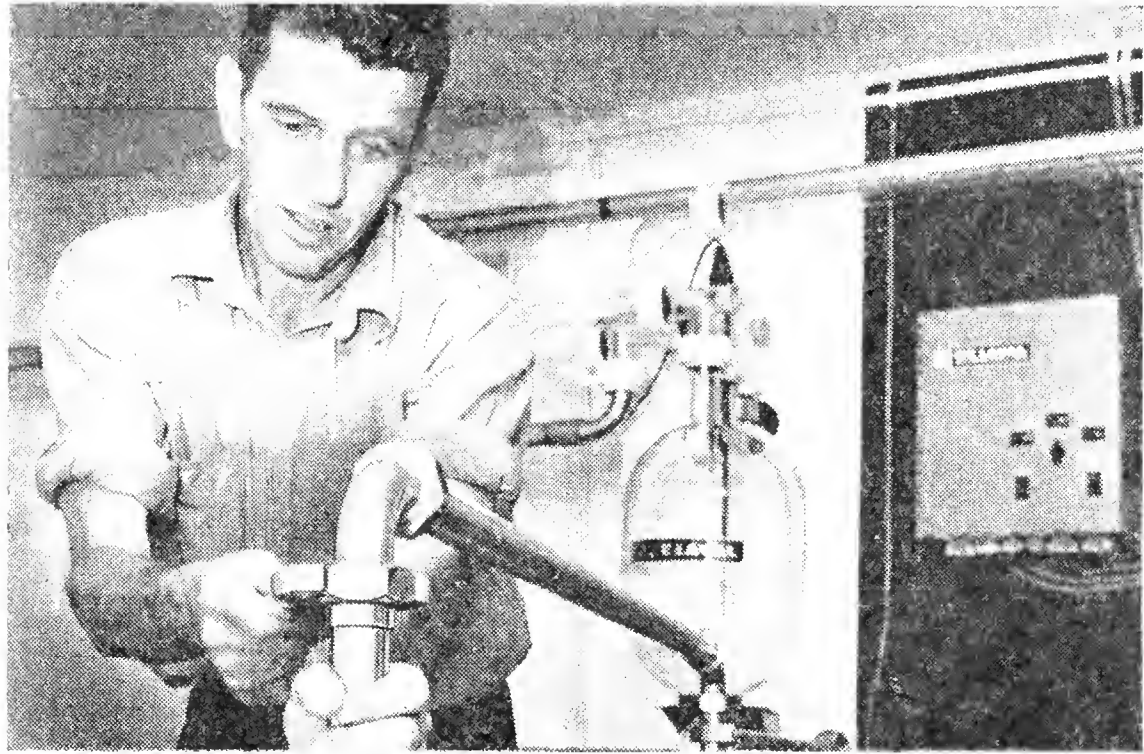
6. Is there already enough of these types of recreation facilities in my community?

The answer to this question is probably "no" because the use of outdoor recreation facilities is rapidly expanding in most areas. But it is worth a check to make sure; tough competition is by no means restricted to farming.

On the other hand, if there are no facilities for the activity you have in mind you might be concerned that there is no interest in this activity in the community. Don't worry about this — you probably

have an excellent opportunity. If you have a large number of people living nearby, interest in your activity can be developed although it may require ingenuity on your part to accomplish this. People don't do much horse riding until they have horses to ride!

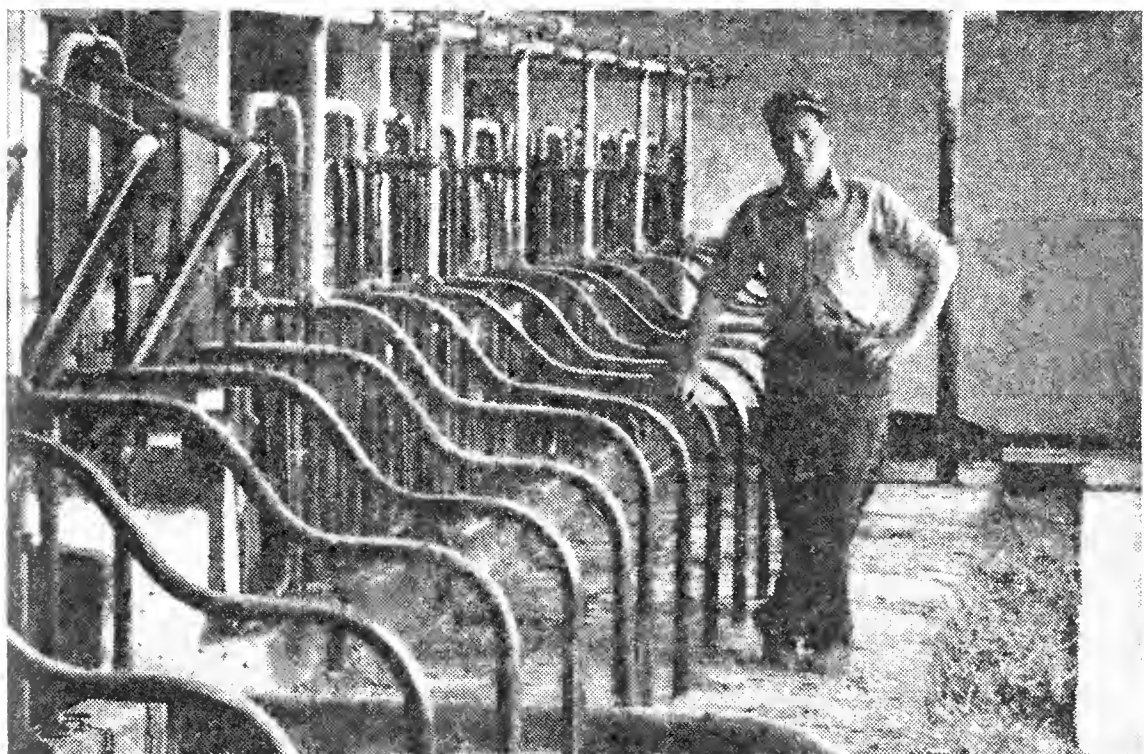
A farmer starting a recreation enterprise is in much the same position as a city man who becomes a dairy farmer although he has never milked a cow. Most of us know some city men who have become eminently successful as dairy farmers but we know many more who failed. Those who are successful knew they were ignorant and made a great effort to educate themselves on how to be dairy farmers. Farmers planning a recreation enterprise would do well to follow their example.



Vincent Weidman, Oxford, New York



Harold W. Bodder, Perkasio, Pennsylvania



Daniel J. Harnish, Richland, Pennsylvania



Antonie Ooms, Old Chatham, New York

We're milking 30-60 minutes faster

(and the new fast-milking DeLaval is gentle)

Read how these Pennsylvania and New York dairymen milk 30-60 minutes faster, get better teat and udder health, with the new fast-milking DeLaval.

"My brother and I milk 88 cows, using four of the new DeLaval units. We finish 30-45 minutes earlier than we did with the six units we used before. One result of this has been an improvement in teat and udder health. We have less mastitis," says Antonie Ooms of Old Chatham, New York.

"We're milking 52 cows with the new DeLaval and doing it 30 minutes faster than when we

milked only 46 cows with the other units. Daily production is up from 44½ to 49 pounds per cow and I believe that's because we're milking faster with the new units," says Harold W. Bodder of Perkasio, Pennsylvania.

"Since we put in our new DeLaval Combine," says Vincent Weidman of Oxford, New York, "we're milking 47 cows one hour faster.

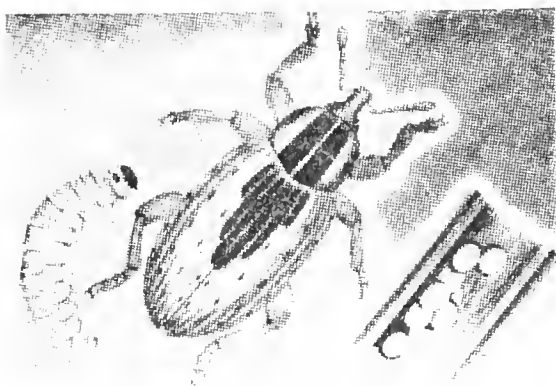
*Reg. trademark of The De Laval Separator Co.



And we're getting about four pounds more milk per cow per day. Udder health is better, too."

"For me, the real benefit of faster milking is healthier udders," says Daniel J. Harnish, Richland, Pennsylvania. "I believe our new DeLaval Combine Milker* has improved the condition of teats and udders. I see less money going out for drug and vet expenses."

Find out how much faster you can milk with the new fast-milking DeLaval, and how this can improve udder health. Ask your dealer. Only 10% down, up to 4 years to pay. The DeLaval Separator Co., Poughkeepsie, N. Y.



Don't Feed This Critter!

By Arthur Muka*

THE alfalfa weevil is a serious pest of alfalfa in the eastern United States. The insect has been present in the Rocky Mountain region since 1904, and was first re-

*Extension Entomologist, Cornell University

ported in the East in 1952.

In the summer of 1955, entomologists of the New York State College of Agriculture confirmed the first reported presence of the weevil in the State.

Since 1955 the insect has spread generally east and north in New

York. At this time it is known to be present in the area east of a line drawn from Binghamton to Glens Falls. All alfalfa fields in this area may not have a damaging population of weevils yet, but all of the alfalfa should be carefully checked for such damage.

The adult insect is a robust brown snout beetle about $\frac{1}{4}$ inch long. It has a characteristic dark brown V-shaped stripe on its back. The larva is a green worm nearly $\frac{1}{2}$ inch in length when fully grown, with a wide white stripe and two fine white stripes down the middle of the back. It has a distinct head which is black or dark brown.

The adults and larvae feed on the

top leaves, buds and young shoots of alfalfa. The leaves are badly riddled with holes and young shoots are often completely destroyed.

Probably the best practical control of the weevil is accomplished in the Northeast by fall application of an insecticide. Fall application allows the grower to treat the fields after the last cutting or grazing of the season during the time when the fields are idle. The insecticide may be applied as a spray, as granules or as an insecticide-fertilizer mixture.

Sprays have given the best results most consistently, but granules also have given good results. The insecticide-fertilizer mixture has the disadvantage that insecticide and fertilizer should be applied at different times for best results. Fertilizer application should be made early in the fall, but most recent research shows that best insect control is obtained when the insecticide is applied in late October or early November (Hudson Valley conditions).

For application in the fall after last cutting, use either heptachlor or dieldrin as follows:

Heptachlor 1.0 lb. (actual toxicant) per acre.
Heptachlor spray—use 2 qts. of material containing 2 lbs. of toxicant per gal. liquid.
Heptachlor granules—use 40 lbs. of 2½%, 50 lbs. of 2%, or 20 lbs. of 5% per acre.

The proper specialized machinery is necessary to get accurate distribution of insecticide granules. Do not apply heptachlor after November 15!

Dieldrin 1.0 lb. (active toxicant) per acre.
Dieldrin spray—use $\frac{2}{3}$ gallon (about 3 qts.) of material containing 1.5 lbs. of toxicant per gal. liquid or 2 lbs. of 50% wettable powder per acre.
Dieldrin granules—use 40 lbs. of 2½%, 50 lbs. of 2%, or 20 lbs. of 5% material per acre.

In the vicinity of the Hudson Valley, control tests have shown that treatments should be made in late October or early November for best results the next spring. In warmer portions of the region, fields may be treated successfully later in the fall. As one goes farther north the date for best treatment is earlier.

To avoid milk contamination after dieldrin or heptachlor is applied, the fields must not be grazed or harvested until the normal time for cutting first crop forage next year.

Spring Treatments

By cutting the first crop early there is no need to spray for weevil control on the first cutting. However, where the weevil has not been controlled with a fall treatment many eggs will be left in the stubble and will hatch out soon after cutting. To avoid injury on the new second growth, spray the stubble immediately after removing the first crop with one of the following:

Materials	Active Chemical Per Acre
endrin*	4 ounces
lindane**	6-8 ounces
parathion	8 ounces
methoxychlor	1-2 pounds
malathion	1 pound
diazinon***	8 ounces
Guthion†	8 ounces

*Do not apply within 35 days of harvest feeding, or after crop is 4 inches high.

**Do not apply when new growth is over 4 inches, or to lands rotated with root crops or vegetables.

***Do not graze livestock on treated forage within 4 days after application. Do not cut hay within 7 days after application.

†This material has caused a slight burning of short duration on the leaves under some conditions. Do not apply more than once between cuttings. Do not apply within 21 days of harvest.

Growers must follow all precautions as listed on the insecticide label to avoid residue problems.



That's the usual comment when people talk about the new MAC 15, the economy cuttin' champ for farm, forest, home, or camp. What's the MAC 15 got going for it? Weather-proofed ignition, automatic rewind starter, an extra large air filter, steel gas tank, and fingertip controls for added safety. The cylinder and head are built as a single unit. No gaskets to leak and steal power. A cast-iron liner in the cylinder means you can rebores, slip in a new piston and keep on cutting in years to come. MAC 15 value just doesn't wear out. McCulloch may build a saw to compete in price, but McCulloch will never compromise quality.

SAVE ON MAC-PAC, an exclusive chain maintenance kit containing these McCulloch tools: 8" flat file, 7/32" round file, bar guard, file 'n joint, depth gauge, spark plug—a regular \$23.25 value—yours at a big savings when you buy a new McCulloch saw. Limited offer, see your dealer now.

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Poultry Russian Roulette

FOR any who aren't certain as to its ground rules, Russian Roulette calls for an individual to place one bullet in one of the chambers of a gun, spin the cylinder, hold the gun to his head—and fire. If the chance-taker loses, he's more than likely to be found dead.

There are those in the poultry business who also play a form of Russian Roulette. They are the people who try to guess what disease or diseases may have struck their flocks.

Operating in the field as I do, one seldom sees pure CRD, pure coccidiosis, pure salmonella or pure blackhead in chickens. For example, an outbreak of what appears to be blackhead occurs. Maybe it's blackhead, but it could also be enteritis and it may be in combination with one or more other



Everett Smith

diseases. We've gotten to the point where we would be gambling if we try to diagnose without proof.

If a poultryman wants to gamble, he can play Russian Roulette and guess what chamber the bullet is in, meaning what disease is involved. By so doing, he's gambling with his livelihood. If he loses, it's going to cost him hard-earned money and a lot of grief.

There are some poultrymen who attempt to discount losses or slumps. These people should remember that every week that you suffer a serious curtailment of production, you have just lost 2 percent of your chance to make a profit. Therefore, if birds suffer a two week setback, the loss in profit opportunity is 4 percent and so on.

The job of any serviceman is to try and stay ahead of disease trouble. I work for Inter-County

Farmers Cooperative and service about a million and a half birds. Calling on our 300 members in five counties, our service department travels better than 39,000 miles per year, and these members are spread over a radius of 75-80 miles. Thus, in one-half hour of driving, I can show you 500,000 birds.

We are proud to call our part of the Empire State the "egg basket of New York City." With this concentration of poultry in a small geographical area, you are certain to have disease problems. We do have a considerable problem with hepa-

titis. My recommendation to all members is that when the birds are housed they be put on a 200 gram level of nf-180 for at least two weeks. In the case of two of our members who are having a chronic problem, I keep them on a 25 gram level of continuous medication.

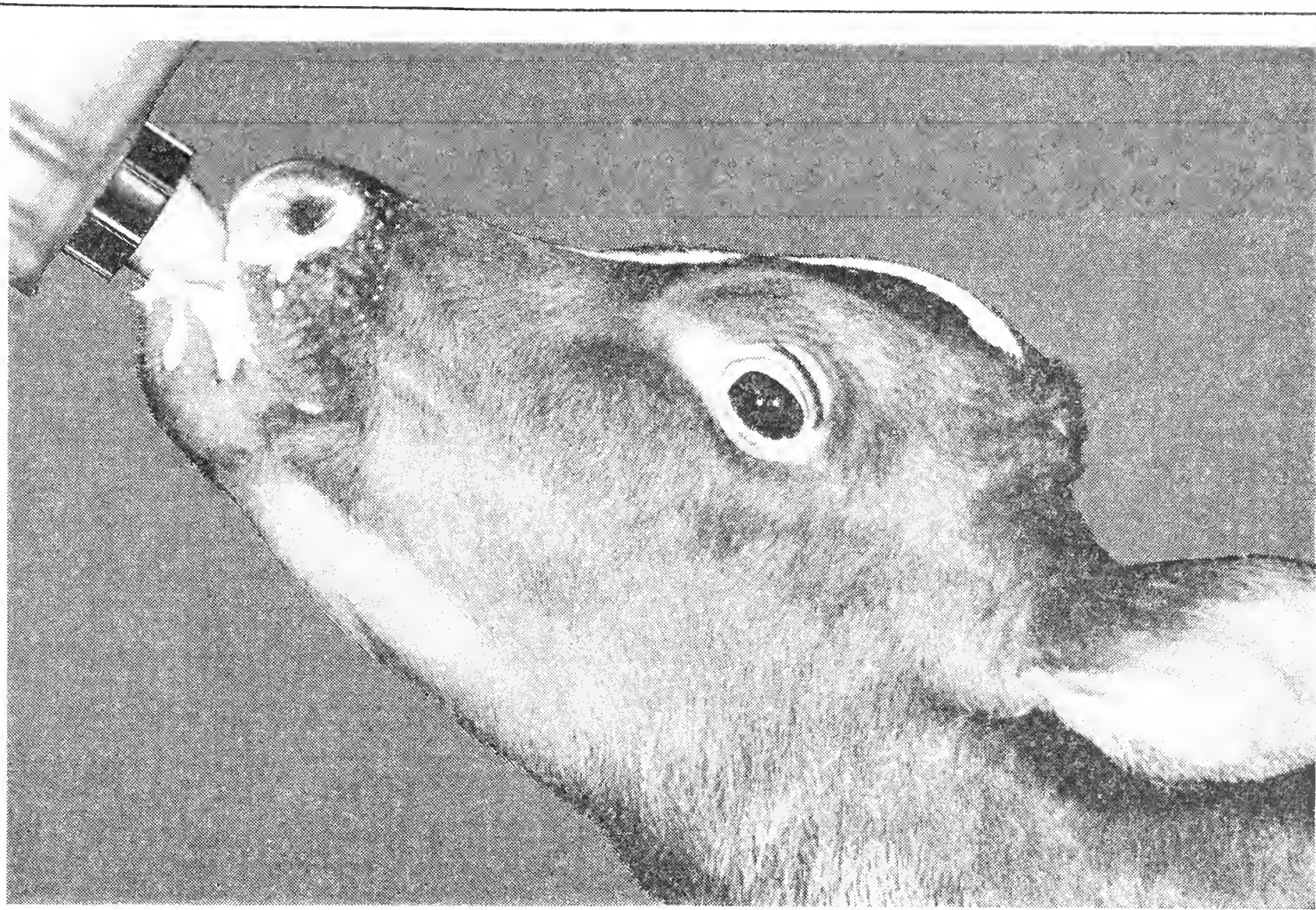
Our vaccination program is very important. We recommend at seven days, a combination; at 4 weeks, a Newcastle; at 12 weeks, a combination; and at 16-18 weeks and no later, another Newcastle. At each of these four vaccinations, we recommend medicating the feed for reducing the effect of stresses.

We sometimes run into another problem, which I call "chronic telephone calls." Some poultrymen are

always in trouble, and it often turns out to be just plain bad management. Medication programs, no matter how well put together, can't correct bad management. — *Everett Smith, Woodridge, New York*

FISHING FUN

Farmers interested in having their own well-stocked trout pond will find much helpful information in a colorful book just published. The title is "Fishing Fun With Your Own Trout Pond," and a free sample copy can be obtained by writing to the U. S. Trout Farmers Association, 110 Social Hall Avenue, Salt Lake City, Utah.



Stronger start... costs less to feed than milk! Wayne Calfnip builds strong, growthy calves yet each 25 pounds lets you sell about 200 pounds of your whole milk. What's more, this superior milk replacer is high in milk products and has the added fortification of Vitamins A and D, antibiotic and trace minerals to provide essential nutrients for fast growth. Helps prevent scours and digestive upsets, too! Calfnip is easy to mix, stays mixed, looks like milk and provides a rich, nutritious uniform ration. Ask your Wayne dealer for a mixing demonstration and try Calfnip today!

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Builders of Tomorrow's Feeds...Today



"Al" Schriner demonstrates the size of the contact lenses.

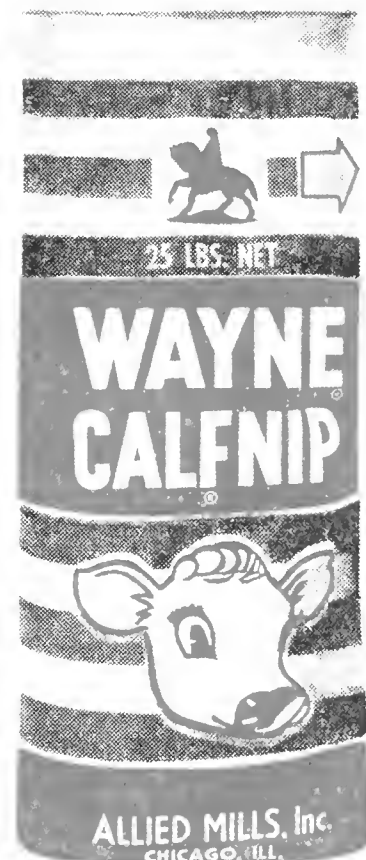
"CONTACTS" FOR HENS

Chickens are wearing contact lenses, not to improve their vision but to distort it.

They no longer panic at sudden movements and sounds, and, best of all, since the contacts are made from red plastic, cannibalism is cut considerably or completely eliminated. Flighty birds, too, become docile and are easy to catch, while new birds can be added to a group without the usual fight.

Credit for the idea of contact lens for chickens goes to A. W. "Al" Schriner of Santa Rosa, California. The lens cost little more than is paid for debeaking.

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MILK REPLACER





TAX PROBLEM

Your editorial on Garden State taxes is very interesting to Long Island farmers. New Jersey has been getting a lot of publicity on its farm tax problem. The current issue of "Business Farming," a New Jersey journal, gives USDA figures showing that New Jersey has the highest per acre farm real estate taxes of any state. In 1961 they averaged \$10.16 per acre, and amounted to 16 percent of total net income. In the September '62 issue of the same magazine is a longer article on the same subject, describing the situation more fully, and outlining plans of the Farm Bureau and the Grange for relief of the situation. Their governor and legislature are working on the problem.

Now take a look at the situation on Long Island. Here, in an area a little larger than Rhode Island, are more people than there are in the mainland part of New York State. Suffolk County ranks first in the State in value of farm products sold, and produces about as many potatoes as the rest of the State combined. It leads in fall cauliflower production; it leads New Jersey in most crops, and also in the tax load per farm acre. My farm might be an average in this respect. This year I must pay \$4,130 for the right to farm 148 acres, not all of which is tillable. A farmer in Melville reports that his taxes went up over 500 percent this year due to a re-zoning along a highway.

Confiscatory?

Dr. Luke is quoted in your article as saying that Garden State farm taxes approach the point of confiscation: the Long Island rates are from two to three times those quoted for New Jersey. Has the point of confiscation been reached? We have had a series of poor to middling income years, and many farmers are dropping out—or just trying to hang on until a buyer comes along. Most of them are too deeply in debt ever to get out without selling, so the developers are able to take over many of the most productive areas not only here but in the rest of the State and nation. This week the news magazines report that by 1980 we will need twice as much food and fiber for a doubled world population. I believe that would be a lot easier on productive land such as we are now losing at a tremendous rate!

The time has come for the legislators to do some clear thinking on ways to preserve a strong agriculture, not by direct handouts but by lowering some of these skyrocketing costs that are driving the farmers out of business. A tax plan that would assess farm land at values in proportion to its ability to produce farm income, instead of its hypothetical real estate value, would be a big first step. When 1980—or even 1981—comes along I think the farmers of the Northeast will be able to produce twice as much if they have

the farms. At the rate we are now going, those few who will be left will have to produce four to six times as much to make up for land losses.—*Harold J. Evans, Riverhead, N. Y.*

TAKE IT TO HEART

What a message Glenn Lake had in a recent issue for the New York dairy organizations! If they spent the energy now expended in fighting one another in pooling their efforts to attain something like Lake describes, we might get somewhere.

I grant that there are those who will take issue with my remarks that the dairy organizations in New York State "fight" one another. But I am continually surprised at the number of times that I find myself in company with some dairymen and hear this stock comment: "Hell, the dairy co-ops won't ever pull together. They are afraid that if something worthwhile gets done 'the other guy' will take all the credit for it!"

If for no other reason than to dispel this grass-roots observation, the dairy organizations should take this word "cooperative" to heart and begin practicing some real cooperation with each other.

I do not always agree with what Louis Longo has to say, but in that same issue he not only hit the nail on the head, he clobbered it! The biggest deterrent to increasing consumption is the "junk" that still finds its way into a milk bottle. I am wondering how long the dairy industry will tolerate individuals who through lack of know-how or



John Streett hooks up his bulk tank to the pipeline.

We use a low-level milking system and a bulk tank positioned below grade. A single vacuum pump operates the milker in the 14 stall herringbone parlor, and also puts a vacuum on the bulk tank. This way, the bulk tank acts as a reserve vacuum tank and stabilizes vacuum fluctuations in the system. It's all a downhill haul for milk from the

plain hard work fail to meet the high standards of clean, quality milk.—*Kimber Spargo, Springfield Center, N. Y.*

UNWISE LAWS

I agree with your editorial, "Blankety Blank." Some of our laws are for the birds. When I was a boy I always found something to keep me busy when not in school. My parents did not require me to work hard, but I felt that I was more independent and had money of my own for clothes and other things. I had a newspaper route, and picked up odd jobs when I had time during vacations. It never hurt me, and it taught me the value of a dollar.

My wife and I have raised three daughters and never asked them to do outside work—but they insisted on doing various things when out of school. They even went to the muck farm here to weed onions, etc. All graduated from high school with honors, are married and doing O.K.

Our laws are of no help in juvenile delinquency. For example, there is a family in our rural district with four children, ranging in age from 12 to 18 years. The father works in the city. The kids wanted something to do, so their father raised some vegetables and sweet corn for them, which they sold at a small roadside stand. For two years they sold the produce and were proud of their venture. Then a year ago the law stepped in and stopped them. The kids were so downhearted! Is this common sense? I would not say so.—*Charles B. Johnson, Batavia, N. Y.*

KILLED WITH KINDNESS

As a farmer, I was gravely worried as to the outcome of the wheat referendum on May 21. At this time farmers were being asked to choose between their pocketbooks and freedom.

When I was a boy, I happened to find a baby squirrel that had fallen out of his nest. My parents were against having pets in the house, but as we cared for the little fellow we

all began to enjoy his company. One day he left us to lead a normal squirrel's life in the woods; the following day we buried our friend. Our squirrel had never been taught to protect himself!

You may ask, "What do squirrels have to do with wheat farmers?" Just that our children will never know what it is to stand on their own two feet as farm operators unless we return to the "woods" called "competitive enterprise." The freedom to compete economically made our nation great. If we kill this freedom we will write the obituary of another great nation.—*George B. Mueller, Shortsville, N. Y.*

FAT PROBLEM

We're writing regarding the editorial item "The Fat's In The Fire."

We have a Holstein herd, current DHIC averages 58.8 cows, 14,388 milk, 3.8 test, 541 fat. Naturally the article mentioned gave us a little jolt, so we checked with our hauler. In addition to our milk he has another high testing Holstein herd two Jersey herds and others. He has to empty the load into a special tank at the plant—they do not want it with the "regular" milk!

We are not blind to the demands for less animal fat and we personally are all caloric conscious—from Momma, an ex-gall bladder patient, to our 21-year-old son, a member of Cornell's JV Heavyweight Crew. However, we do not believe the whole story on "culprit" animal fat has been told yet.

Our own unscientific tests have convinced us that high testing milk (up to 4 percent) tastes better than the 3.5 percent milk. Aren't milk dealers who demand low testing milk killing the demand for milk by giving the public an inferior product? —*Norman Sierk, Darien Center, N. Y.*

A MEMORIAL

I wish to transfer my subscription to AMERICAN AGRICULTURIST to my daughter, who is following very capably in her father's footsteps and will find it very useful indeed. Just before my husband died last fall he wrote the verses which I am enclosing, and which so well express his feelings about our home.

—*Mrs. F. K. Coddington, Basking Ridge, N. J.*

Forty years in this place I've spent
With joys and tears I've lent;
Its beauty, rank and strong, has held
without a dearth
My love for this green piece of earth.

About my home great giants stand;
Guardians of this wonderland;
To man and beast their comfort gave,
Through all the storms of centuries
braved.

Mountains around us rise, hold brook
and dell—
And in their cool, moist shade grow
Countless posies — with all the colors
known—
Fern clumps all about, with mosses on
the stone.

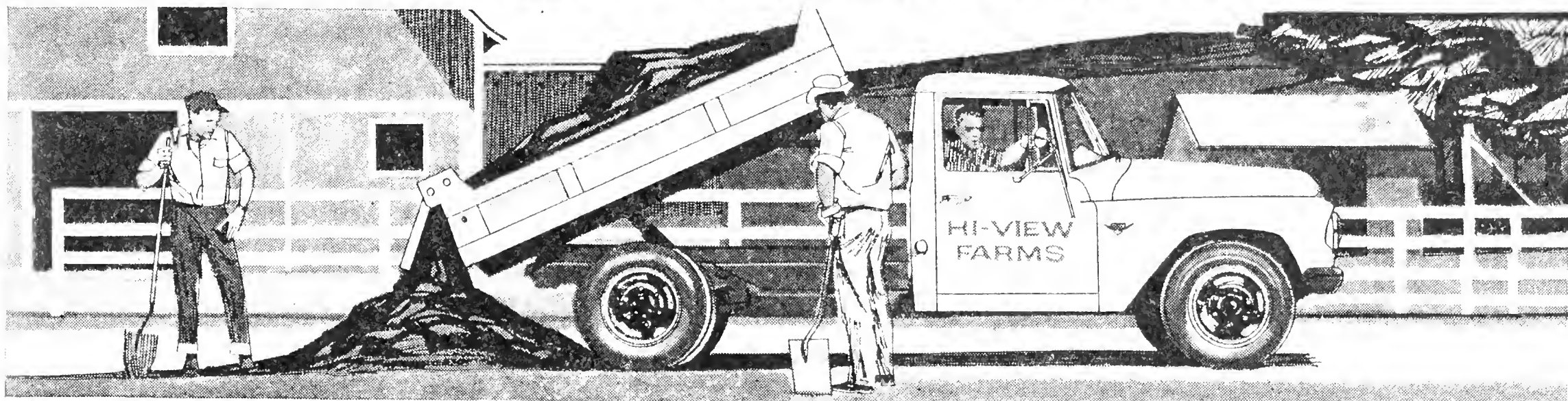
Back in the hills this homeland is spread
Far from the city where crime is bred;
Green meadows and orchards growing
in fertile soil,
Laughing brooks, singing birds, and
tree-toads' throaty call.

The grandest stage that e'er was set
is at my feet;
Flowers in gayest colors, their perfume
sweet;
Bees dancing among the flowers;
Brooks and wind doing their part
While the setting sun gave its rarest
light
Before the curtain dropped—and it was
dark.

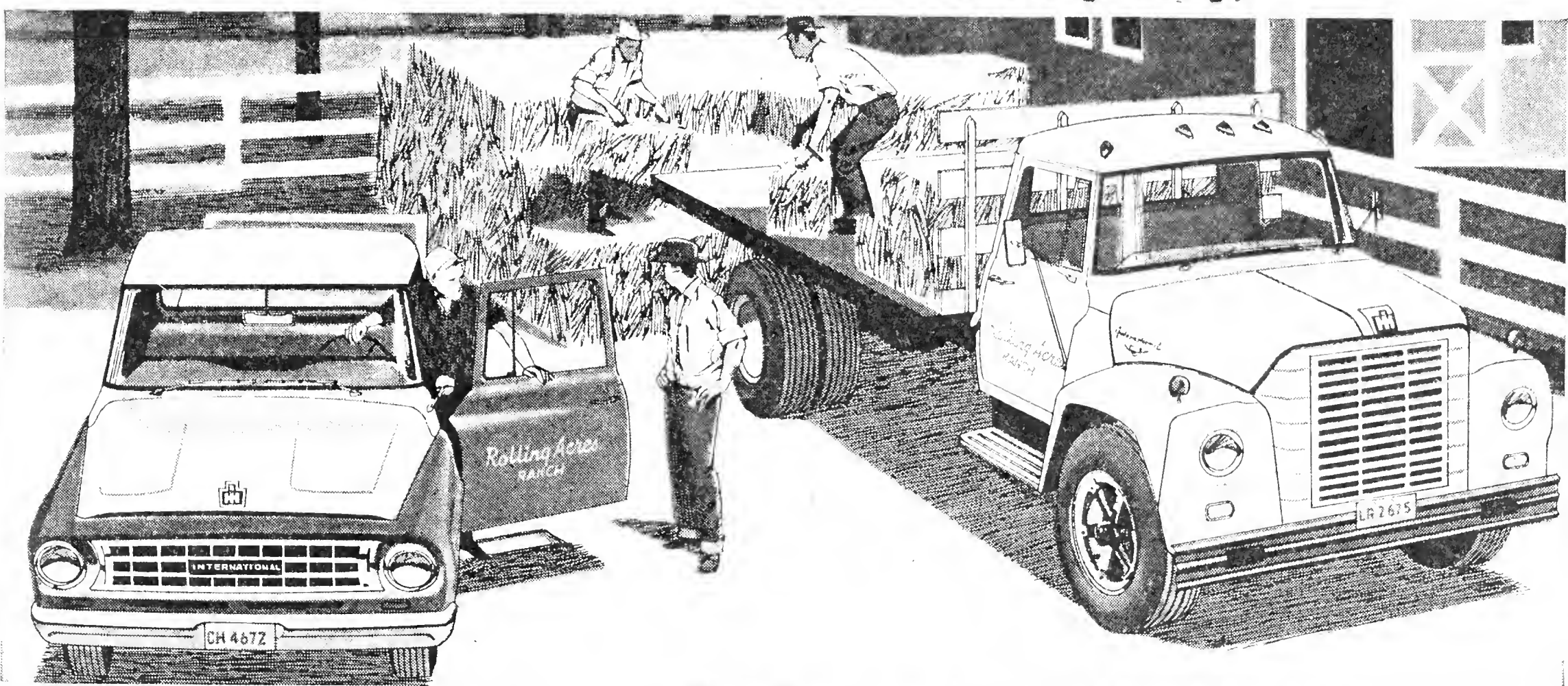
— *American Agriculturist, September, 1963*



If you need an "economy-size" pickup,



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INTERNATIONAL can give you the specialized truck for the particular work!

If you're looking for a low-cost truck to move those small loads around quickly and easily, the INTERNATIONAL Model 900 Pickup (top), with 4-cyl. 93 hp. COMANCHE® engine, will rate mighty high by any yardstick!

Or if you've got a lot of materials to move, your best bet can be the Model 1300 (center) with handy dump body. This truck with optional all-

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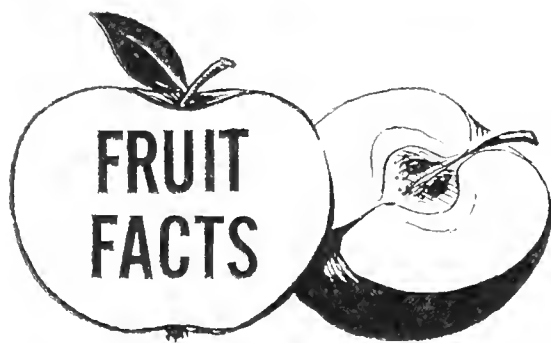
To do your work the best way, there are over 100 other INTERNATIONAL light-duty models—pickups (Model 1100 shown below left), stakes, flatbeds. Power includes 4, 6 and V-8 engines.

And for bigger, bulkier loads, check into the LOADSTAR® models (lower right)—all-truck and heavy-duty engineered in every respect!

The nearest INTERNATIONAL Dealer or Branch can give you the details on the whole line.

INTERNATIONAL® TRUCKS WORLD'S MOST COMPLETE LINE **IH®**

International Harvester Company



HEDGE-TRELLIS SYSTEM

For hedge-trellis fruit tree production in France, apples are grown on EM IX and II, and pears on quince rootstock. Pears are planted tilting to the north at a 45° angle; apples on EM IX at a 60° angle, but on more vigorous rootstocks such as EM II the angle is 45°. Scaffolds are formed by fanning to the south at a similar angle, and these are

spaced about every 8 to 10 inches.

A four wire trellis is commonly used, with the first wire about 20 inches from the ground and about 18 inches between the remaining wires. Posts are placed about 20 feet apart. Pears are planted 5 to 6 feet in the row, apples, 7 to 8 feet; 10 to 12 feet between the rows is general, but is determined by the equipment.

In the first growing season, the tree is brought up to the first wire, but the terminal is winter-pruned back to about 2 inches above the first wire; the same procedure is followed for the remaining wires and years. Trees are summer-pruned to admit light and prevent too much bushiness; terminal growth that goes above the top wire is bent and tied.

Near Angers, France, a 250 acre orchard is handled in this fashion. Production of Golden Delicious ranges from 15 to 25 tons per acre; an average good pear production is about 15 tons per acre, but may be as high as 25 tons.—*L. D. Tukey*

STURDIER APPLE TREES

Tests have shown that placing a small amount of fungicide and nematocide around a young apple tree at planting time reduces injury by fungi and nematodes for a few weeks, letting the roots grow in peace. Also, an above-ground mulch reduces weed growth and water loss.

At the Connecticut Agricultural Experiment Station, Storrs, 20 McIntosh apple trees were planted in 1960. Of these, ten trees had a fungicide, pentachloronitrobenzene (PC-

NB for short) and a nematocide, dibromochloropropane (DBCP) mixed with soil around the roots at planting time to control root-rot fungi and nematodes. Then the soil surface of five of the trees and five untreated trees was covered with 3-foot squares of plastic mulch. Five trees were left to fend for themselves. The mulch was left for three years around the trees; no further soil treatment was made.

It was evident that the trees liked the coddling. Those having both PCNB-DBCP soil treatment and plastic mulch put out twice as many new shoots and roots as did the trees without any treatment. Trees helped with just the pesticides or the mulch grew about 40 percent more shoots and roots. The results gained, of course, would depend to a great extent on the location and the fungi condition.

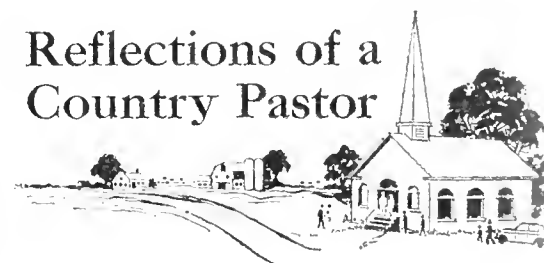
The cost was about 3 cents a tree for the PCNB-DBCP treatment. In connection with the mulch, the plastic has consistently increased growth more than a straw mulch.

NEW DEVICES

A new mechanical device for orchard brush removal is the brush rake offset, which reaches 13 feet under the tree and is adaptable to any 3-point hitch.

Also demonstrated by Douglas Bruno, Sodus, N. Y. at the annual meeting of the N.Y.S. Horticultural meeting was a herbicide applicator, a tractor-mounted (rear) boom designed to spray a strip from the trunk out to the drip edge of the tree. The end of the boom is fitted with a dolly wheel to maintain the height needed to get proper coverage. Detailed mimeographed drawings are available from Mr. Bruno upon request.

Reflections of a Country Pastor



"I FEEL YOUR HEART"

A young lad bounced in from school and found his mother in tears. "What's the matter, Mother?"

"My face pains terribly. It's called neuralgia."

"Don't cry, Mother. It makes me feel bad. I feel your heart in my heart!"

What better definition of sympathy! "What hurts you hurts me." Your illness, grief, fear, disgrace, trouble, mistake, failure, or whatever bothers you deeply, is felt by me. What a wonderful solace in a heart-twisting experience to find a sympathetic person. Much better than a "depressant drug" or a spirit stimulant.

Likewise, "what helps your heart, helps mine." All kinds of courage, comfort, character strength, some from a sense of companionship in any kind of test or contest. Christ, the great friend, said: "I am with you always, right up to the limit."

Why, then, should the spirit of mortal be sad? There's unlimited help to endure, help to dare, to succeed, for anyone who reaches into himself to discover Creator-given resources to withstand. And also for one who reaches for his earthly or his Heavenly Friend for a helpful lift.—*Arthur Moody*

22
OF NEW YORK'S
TOP* DHIA HERDS
USE NYABC

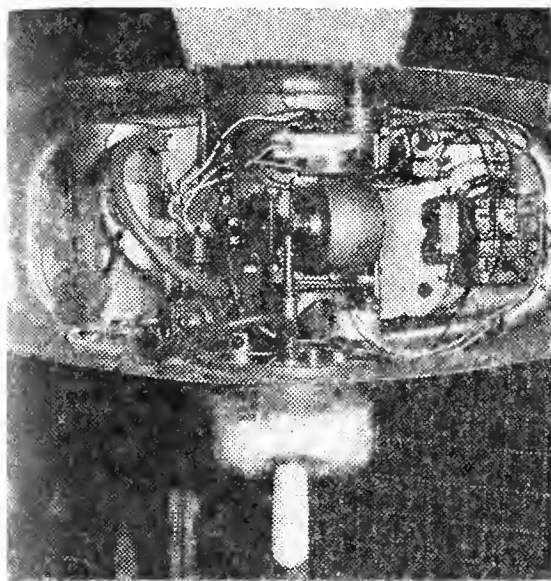
*600 lbs. of fat or higher
in 1962-63

Yes, more than 3 out of 4 of these leading herds are relying upon the quality, profit-plus breeding offered by NYABC—and proving its value in their own herds. It takes time and much good management to build a 600-plus herd, but you'll find that NYABC breeding is the surest way to improve production at all levels. See your nearby NYABC technician.



Your Headquarters for Superior AI Proved Sires

It's New



What Is It? — Here we have a mechanical mother for calves that does everything but moo. The feeder automatically mixes a formula of milk replacer powder and warm water and feeds it to the calf. It's smart enough to prevent one calf from hogging all the food, too. Only a half pint of formula is dispensed at a time, then the machine waits four minutes before another portion is released. And so that solids don't sink to the bottom of the bowl, whenever a calf nurses, a sensitive pressure switch turns on the stirrer. The formula is kept at a temperature of 98 degrees, as is the reserve water supply in the tank at left.

One unit serves up to 15 calves, and the setup was designed by K & K Manufacturing, Minneapolis; the four precision switches which are the "brains" were made by Minneapolis-Honeywell.

New Insecticide — Living death for bugs such as the cabbage worm, cabbage looper, etc. but completely harmless to humans, birds, fish, animals and bees. That's the description given of Thuricide 90T Flowable, which is expected to be put on the market by Stauffer Chemical Company late this year or early in 1964. Full exemption from FDA residue tolerance requirement has been granted by the Food and Drug Administration, so that crops can be safely sprayed right up to harvest time. It has been under test for the past six years, and there is no evidence that insects can build up resistance to the insecticide.

"Peas-In-A-Pod" — In England, apples are packed this way. A papier-mache carton shaped like a pea pod and 12 inches long holds about 5 small apples (1-3/4 to 2 inches). The green carton is closed with rubber bands or ties, and the red apples show through. The handy pack fits easily into a grocery bag, picnic basket, or a coat pocket—or can be tucked under one's arm.

Kills Scrub — A new development called Fenuron, under test at Clemson College, may help in ridding pine plantings of unwanted scrub oak trees. The chemical pill can be broadcast across woodlots by plane or by hand; when scattered at the rate of 15 to 20 pounds per acre all hardwoods die (with no resprouting). Tests so far show no harm to animals, fish, or humans from the pills.

Tenderize On Hoof — A harmless vegetable protein injected into the blood of meat animals enables meat packers to tenderize all sections of an animal shortly before slaughter.

ing. After slaughter, during the cooking process, the protein becomes active and tenderizes the meat. Packers expect forequarters to become as salable as hind-quarters. The process has been approved by the USDA.

Leasing Poultry Equipment — In the Far West and South, the practice of leasing poultry equipment has made great strides, particularly for purchases in the higher brackets. In industry, of course, the leasing of trucks, tractors and heavy equipment is common practice. In the Northeast the practice is still in its infancy, but it is almost sure to develop.

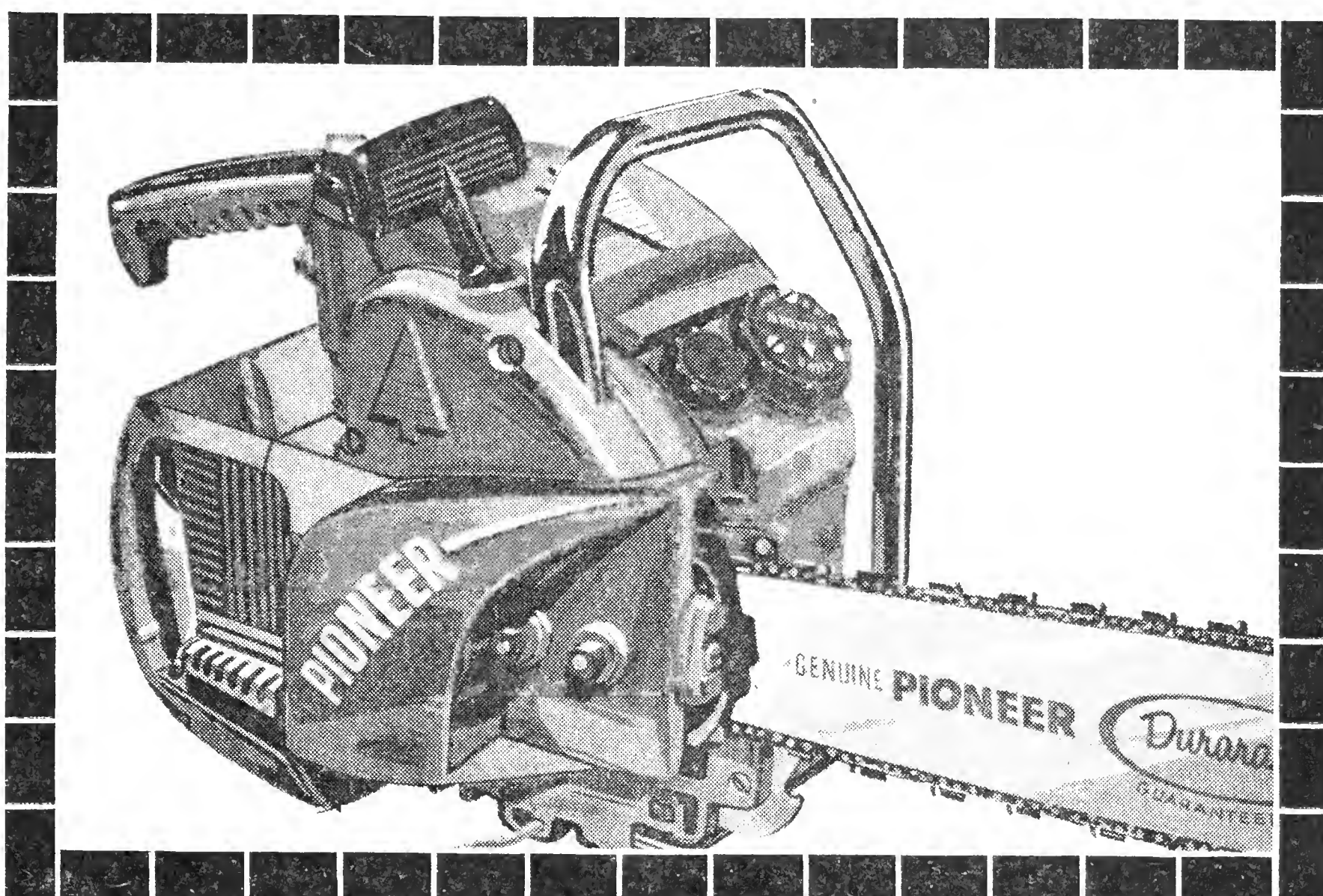
Advantages include the fact that in leasing equipment working cap-

ital is not used, normal bank credit is undisturbed, qualified repair service is frequently available. On the other side of the ledger is the fact that over a period of time the actual dollar outlay for equipment can be greater in leasing than for cash purchase. Furthermore, if circumstances should make it necessary, you would find it difficult to get out of the lease before its termination.

Hope for Chestnuts — Nine promising hybrid chestnut trees have been selected by the Connecticut Experiment Station for blight resistance, superior form, and vigorous growth. Presently these trees must be propagated vegetatively, and grafting has proved the most successful method to date.

There are some scions of the nine hybrids available to those interested in trying them out. Write the Genetics Department, The Connecticut Agricultural Experiment Station, Box 1106, New Haven 4, Conn.

Detector — It may be some time in the future, but sooner or later lettuce is going to be harvested mechanically. Already tests have been made with a machine that can detect "readiness" of lettuce heads by thickness. Engineers are now working on a cutting device; then will come a conveyor system for the tractor-mounter harvester. The experiments were done at the University of Arizona under the direction of agricultural engineer Billie L. Harriott.



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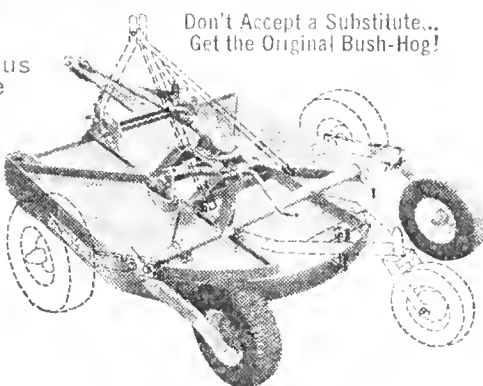
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SELMA, ALABAMA

Utility Is Beauty

By Rockefeller Prentice*

GENETIC improvement of cattle is at best a slow process. Human population, on the other hand, is exploding at frightening speed. Notwithstanding present agricultural surpluses in this country, efficient production of human food may soon be one of our most desperate necessities for survival.



Rockefeller Prentice

From this point of view, we believe that type of dairy cattle is being over-emphasized without sufficient justification. The extent to which type is being emphasized more than necessary for efficient milk production, we will consequently call in this policy statement "superfluous type."

Milk is produced by the functioning of internal organs and physiological processes which cannot be measured with any degree of exactness by external appearance. We know from experience, however, that external appearance is a safe, though rough, guide for distinguishing between an animal that may be expected to produce milk efficiently and one that may be expected to produce beef efficiently. It is probably this paradox that lies at the root of all type vs. production discussions.

Between Extremes

Between the extreme dairy and the extreme beef types lies an infinite series of gradations. For efficiency in either milk or beef production we must have a sound animal. In all type vs. production discussions, it is agreed or assumed that for good milk production we need a sound animal of the general dairy type. There seems no reason to believe that this animal could not and does not take numerous different forms in specific cases. The least common denominator of these forms has been referred to as "utility type." By "utility type" we mean the sum total of external qualities that high-producing dairy cattle have in common that are of value in day-to-day milking operations.

Type as embodied in "ideal type" models and measured by classification ratings is a refinement of, and goes beyond "utility type." Presumably "utility type" is included in "ideal type." The following expression is given to clarify this use of our terms:

"Utility Type" + "Superfluous Type" = "Ideal Type."

The idea of "ideal type" is probably very deeply rooted in habits of thought established through many centuries before the 20th... before the practice of keeping milk production records was introduced, when a cow's milk-producing ability had to be guessed by looking at her. This idea still persists today, probably for a number of reasons: it is still so deeply rooted that there is a true value in "utility type;" unquestionably "ideal type" has an extra value — currently — in the sale of dairy stock.

Certainly the breeder can use the extra money that "superfluous type"

will bring him — a value to him independent of production. From that point of view, "ideal type" is not superfluous. But it is superfluous in the sense that it does not feed populations; and we question whether it will long even command additional price.

The 20th century has witnessed the progress of two movements, hard to reconcile, except for the reasons just stated. We have seen the establishment and rapid growth of herd testing for production and herd classification for type — almost simultaneously. Stated another way, hardly do we start measuring milk production than we redouble our efforts to judge cows by appearance. It is hard to believe that this can be solely for the purpose of estimating roughly the producing ability of dairy cattle which can now be measured accurately.

Whatever the explanation may be, one great advantage has accrued from this double-barreled program. It has provided a better opportunity for a more scientific study of the relation between type and production than was possible in the earlier days, when there was little lactation-period herd testing, and when score cards were overlaid with fanciful requirements as they were.

It has been found, as a result, that the correlation between lactation production and type score is low, even when studied in cows in the same herd. As far as selecting parents for type as a means of improving production in the offspring, it has been said by respected authorities: "While there is no genetic antagonism between good type and high production, selection of type alone will have little direct influence on over-all type rating."

In short, it has been well established that "ideal type" and "high production" are essentially independent of each other in the individual and that these qualities are also inherited independently.

The fundamental principle of probability has been amply demonstrated in the field of breeding. Research has repeatedly shown that selecting for more than one character at the same time reduces the rate of genetic progress that can be made with respect to each, and in proportion to the number of characters for which selection is being made.

Production Sacrificed

ABS believes that the pounds of milk being sacrificed per generation by selecting for "ideal type" is substantial compared to the gain that could otherwise be made — that is, that faster progress in breeding for economically profitable milk production can be made by disregarding those qualities of physical appearance not related to production. It is ABS policy to do so, and to do everything in our power to de-emphasize "superfluous type," which, from what has been said, appears to be not merely superfluous but a positive drawback to breeding for production. In line with this policy, and except where required by regulations, we will not hereafter publish type ratings on ABS bulls or their female relatives or publish awards to ABS bulls based in any way on such classification, nor will we take

* Chairman of the Board, American Breeders Service

(Continued on Opposite Page)



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Bag Balm is entirely SAFE for use against Face Flies. Chosen by many veterinarians. Thus avoid loss of milk production and weight due to these nagging insects. Apply Bag Balm around eyes and nostrils of Cattle, Horses every 2-3 days. Stays on. Also a great antiseptic ointment. At Dealers or write:

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11 HEIFER CALVES — 2 Top Yearling Bulls
Cows' recs. avg.: 12,400 M 4.1% 522 F.
Dams of Bred Heifers avg.: 12,418 M 4.2% 526 F. Dams of 4 Heifer Calves avg.: 15,170 M 4.2% 623 F. Dams of bulls avg.: 20,472 M 4.0% 824 F. This is the place to buy "Best-of-the-Breed" cattle. Lots of fall milk.

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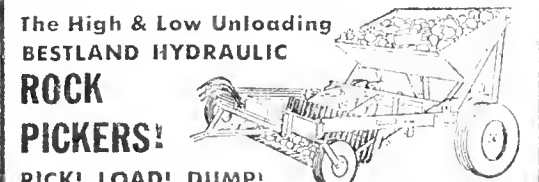
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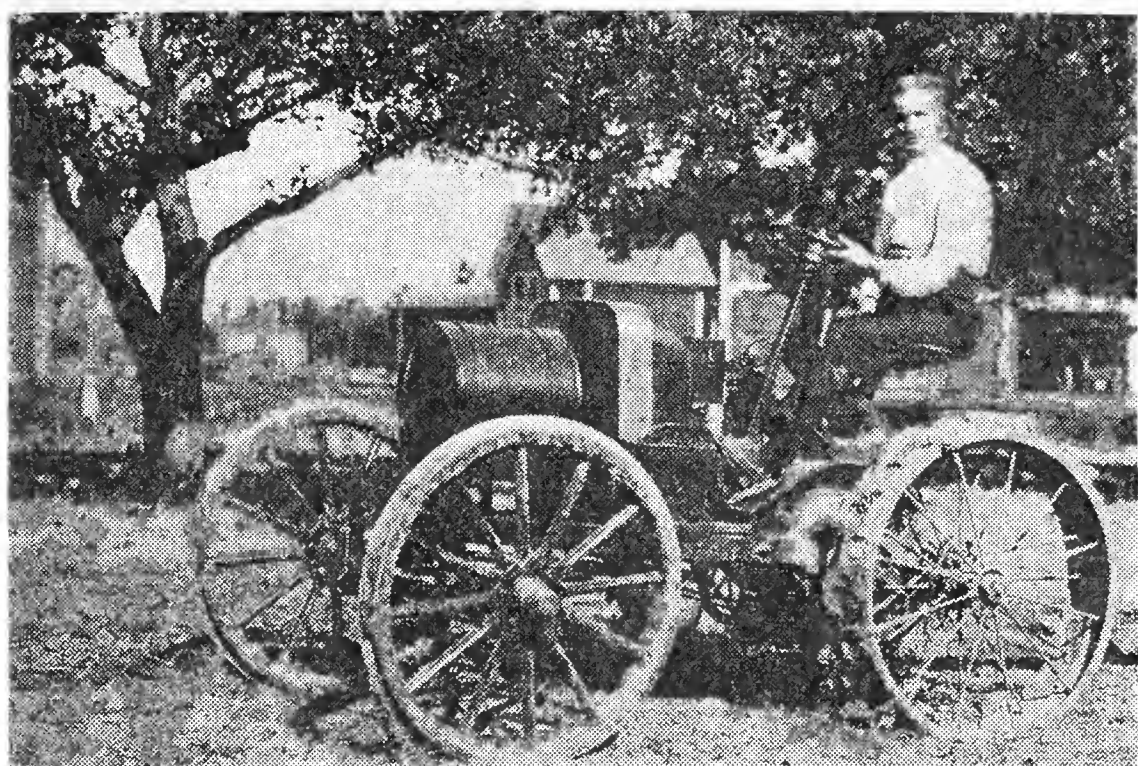


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Henry Ford at the controls of one of his first tractors, powered by a 1904 Model-B engine. The picture was made on one of the many farms Mr. Ford owned at that time in the Dearborn area.

Industrialist and Farmer

THE YEAR 1963 marks the centennial of the birth of Henry Ford, who contributed as much as any individual to the freeing of the farmer from rural isolation.

The famous Model T Ford overcame the problem. Fifteen million "Tin Lizzies" found their way along rough, muddy roads—and even mere fence lines—to farmyards, for duties never dreamed of when the car was first introduced. Pulleys attached to the rear wheels and the 20 horsepower engine drove wood saws, ground feed, hoisted grain for storage, churned butter. Milk cans, chicken crates, sacks of potatoes and all types of produce were car-

ried in the back seats, or strapped to running boards, on their way to market.

Years before he mass-produced the Fordson tractor, Henry Ford experimented with what he called an "automobile plow," the forerunner of the tractor. He thought mechanical equipment should be a part of standard farm operation, so he developed a system to mass produce the Fordson tractor, which was introduced in 1917.

Henry Ford was born on a modest farm at Springwells Township, near Detroit. He always loved the land, but disliked the drudgery of rural life, and from his youth determined to find an economical way to replace farm animal power with mechanical power.

Mr. Ford introduced the idea of decentralization of industry, saying that cities were crowding people together too much. He established village industries, many within a few miles of Dearborn, and by 1934 these small plants were employing 2,400 part-time farmers. His belief always was that industry and farming should cooperate for a more healthy economy.

WISCONSIN EXPERIENCE

A REPORT BY Howard Larsen, dairy scientist at the University of Wisconsin, shows that stored feeding has been the best way to use an alfalfa, brome and ladino mixture in seven summers of research work at the University experimental farm at Marshfield. The experiment compared stored feeding, green feeding, and strip grazing.

The return per acre of 4 percent milk was 5,570 pounds for stored feeding, 5,082 pounds for green feeding, and 4,419 pounds for strip grazing. It was found that dairy animals grazing an alfalfa, brome and ladino clover mixture should have enough forage available to allow for a 30 percent waste of forage dry matter to insure sufficient forage intake. Stored-fed animals wasted 8 percent of the forage fed to them, while animals on green feeding rarely wasted more than 5 percent.

"Animals on an intensive grazing system," said Professor Larsen, "will walk about 5,500 feet daily to obtain the necessary forage, while cows on green feeding will walk about 40 percent as far. Grazing time on pasture amounts to about nine hours per day where there is an abundance of forage, while filling time on green feeding amounts to about six hours. It is estimated that in a field grazed four times each year, every square inch will be exposed to hoof action 3.2 times during a given season. The hoof action of the grazing animal has ample opportunity to damage the growing plant as well as exert an effect upon soil mixture."

UTILITY IS BEAUTY

(Continued from Opposite Page)

part in having them classified or in dairy cattle judging.

We believe it will be found that the present over-emphasis on "ideal type" may not have been so ideal after all, and that it will eventually pass, just as, in the commercial poultry business, the poultry shows and the "Standard of Perfection" for poultry have given way to sound genetics. Classification is easier and faster than production testing, and many animals that classify well produce poorly, and vice versa. Thus classification in many cases provides a shorter route for producing the semblance of a value that is not present.

This is not a time in history to occupy ourselves overly with surface or purely aesthetic values in dairy cattle. Rather we need to conform our ideas of beauty to that which is useful. Utility is beauty. By standing firm on our genetic and business principles, without compromise for the sake of "ideal type," all segments of our industry ultimately are bound to be the gainers in all respects.

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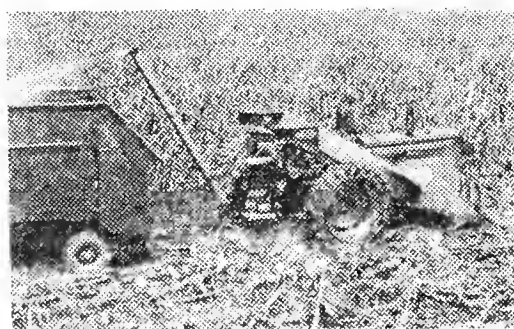
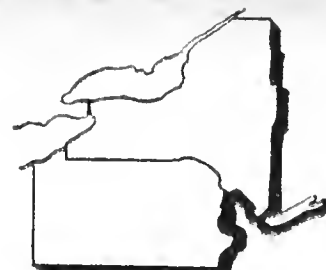
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News and Views from NEW YORK AND PENNSYLVANIA



NEW IDEA FARM EQUIPMENT COMPANY, Coldwater, Ohio, has an all new, high-capacity corn grinder unit that will quickly interchange with the husking bed, snapper elevator or field sheller on the New Idea mounted gathering unit. This new grinder receives ear corn from the gathering unit, cuts up the cobs and husks, sizes the cob particles, cracks the kernels, then delivers the unseparated, thoroughly-mixed feed to the wagon.

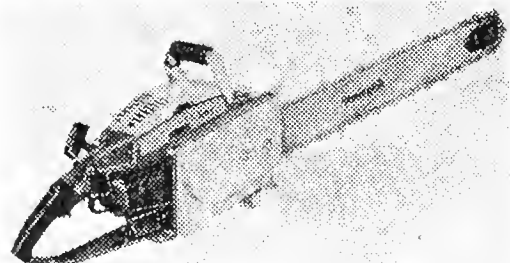
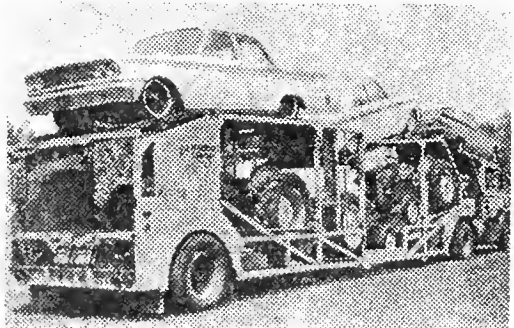
By adding an elevator and hopper to this grinder, the unit can be converted to a mounted unit for stationary grinding, or by installing wheels, a universal hitch and a long PTO shaft, the machine becomes a portable grinder for stationary use.

A truly multi-crop combine which works equally well in high-yield grain, beans, corn, sorghum, and seed has been developed by the J. I. CASE COMPANY, Racine, Wisconsin. Listed among the features of this all-new Model 700 are a 55-bushel grain bin that unloads in less than one minute, new low profile for easier storage and transporting, 500 spm sickle speed for cutting tough crops clean, header throw-out clutch, a 70 hp engine, and row-fitting wheel treads. A 12-page catalog describing the Case 700 may be obtained from Case dealers or branches, or by writing the J. I. Case Company, Racine, Wisconsin.

Development and design engineers for the OLIVER CORPORATION South Bend, Indiana, reported on new equipment developments by Oliver at the last annual meeting of the American Society of Agricultural Engineers. One item is a high speed precision planting mechanism that accurately drills corn at speeds from three to seven miles per hour.

Another new development is a combined cushion and trip beam plow. Each plow bottom has an individual cushion action trip release that absorbs the shock loads and trips in a way that barely raises the plow frame, thereby reducing stresses on shares and frame and permitting plowing at higher speeds.

FORD MOTOR COMPANY, Birmingham, Michigan, has integrated the movement of tractors into its national automobile distribution system, and now offers the quickest factory to customer delivery in the tractor industry. Customers can now order tractors to their exact specifications and have delivery within 30 days under normal conditions and 10 days in emergency situations. Under the new method, tractors are taken from the company's Highland Park, Michigan, tractor plant to its Wixom, Michigan, automobile assembly plant, where combination loads of tractors and cars then go by rail or truck to any of 39 distribution centers located throughout the country. They are then delivered direct to Ford tractor dealers.



REMINGTON ARMS COMPANY, INC., Park Forest, Illinois, has announced that their 1963-64 chain saw line includes four direct-driven chain saws—Bantam Super 660, Super 770, Super 880 and four gear-drive chain saws Super 660G, Super 770G, Super 880G, and Super 770GB. The Super 770GB is a plunge bow chain saw specifically designed for production pulp cutting. With the introduction of the new flush-cutting Bantam, the left hand starter is now standard throughout the line.

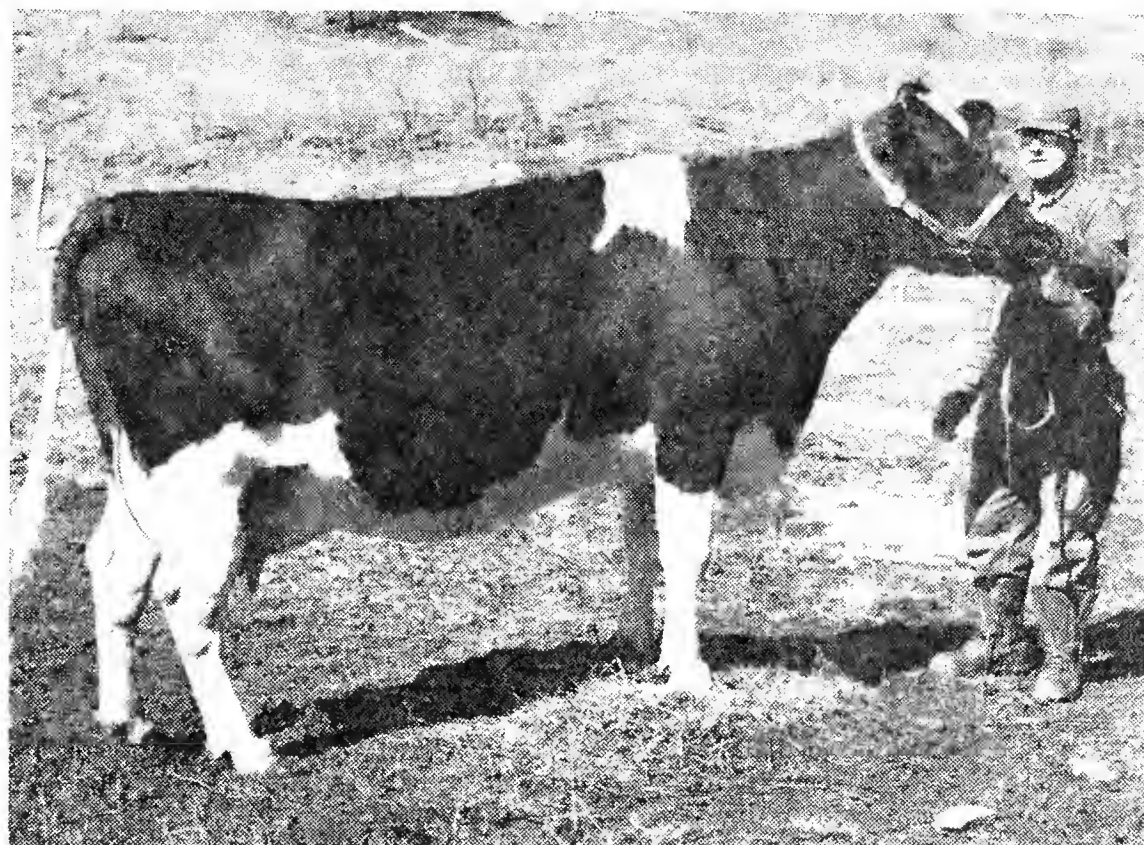
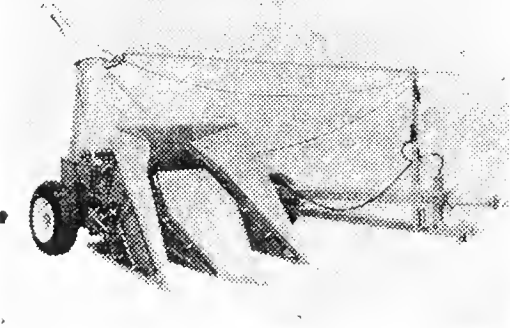
A new portable automatic bird scarer is being manufactured by ALEXANDER-TAGG INDUSTRIES, INC., Hatboro, Pennsylvania, that is said to protect 10 acres for only 50 cents a day. The ABC Bird Scarer rotates with each "banging" sound it makes, and birds cannot become accustomed to the noise since the unit rotates a full 360° on a repeating cycle. The height of the unit can be regulated in minutes to provide complete coverage regardless of surrounding terrain or crop height.

The compact, multi-purpose Scout by INTERNATIONAL HARVESTER COMPANY, Chicago, Illinois, is now available with new and improved standard components and optional equipment for greater versatility and wider appeal. A recent innovation in Scout body design—the walk-through feature that provides a cutout in the partition separating the front seats from the rear of the unit—now is standard on both rear wheel and all-wheel drive units.

More efficient self-energizing duo-servo brakes, positive crankcase ventilation, a heat shield on the exhaust manifold, and muffler mounting at the rear of the chassis under the body are all new standard equipment features.

MASSEY-FERGUSON, INC., Detroit, Michigan, is selling an improved heavy-duty seven-bottom plow tractor, the MF 97, to provide in one model both two wheel and four-wheel drive. This new combination gives the operator the power advantage of four-wheel drive and the convenience of two-wheel drive for road transport. Other improvements include a redesigned steering linkage for a shorter turning radius, reinforced battery box support, a strengthened drawbar and redesigned throttle control.

ALLIS-CHALMERS, Milwaukee, Wisconsin, has introduced a new, large capacity Model 780 PTO driven, two-row, row crop forage harvester. With a capacity up to 60 tons of corn silage an hour, it is designed to harvest the big volume forage crops required to feed the steadily increasing number of roughage-consuming livestock. A direct cut grass and a full width pick up attachment will be available in addition to the two-row, row crop attachment. A quick hookup mechanism on the unit permits speedy interchanging.



Lewis Fisk, Troupsburg, N. Y., at the halter of Fi de Blackberry Hartog, all-time high DHIA production leader for Steuben County. Blackberry is owned jointly by Mr. Fisk and Neil Demun, also of Troupsburg, and is the daughter of M F Sir Pride Adantha.

Golden Nematode — Many people think of this as a problem only of the potato farmers on Long Island, but the regulations affect many types of agriculture. For information regarding the quarantine or for permit applications for potato grading stations, write to the New York State Department of Agriculture & Markets, Division of Plant Industry, P.O. Box 96, Hicksville, N. Y.

Control Rabies — Scientists at Cornell University and the New York State Conservation Department hope to control rabies by preventing the reproduction of foxes, an animal that is a major source of the disease. Fox cages are now being built at the College of Agriculture for a program that will eventually lead to the luring of wild foxes with food containing reproduction inhibitors.

Redcoat Wheat — In tests at the University of Pennsylvania this variety yielded 4 to 5 more bushels per acre than other varieties. By adding 50 pounds of nitrogen per acre, yields of 60 bushels were possible. Redcoat has a short, stiff straw, and is resistant to many diseases, including mildew.

Cherries — Growers of red tart cherries in New York State again will pay \$3.00 a ton on their processed crop under their marketing order. The money is used to promote sales and research.

Professor Everett D. Markwardt, agricultural engineer at Cornell University, reports that red tart cherry farmers of New York State are ready to accept mechanical harvesting on a substantial basis. Machines are being built for the 1964 harvest and it is expected that up to 30 percent of the State's cherry picking will be done by machine within the next two or three years.

Mr. Raccoon — The New York State Conservation Department and the New York State Raccoon Hunters Association are organized with the Extension Service to help farmers control raccoon damage to crops. If you are having trouble, contact your

county agricultural agent's office. They, in turn, will notify the Regional Fish and Game office of the Conservation Department, who will issue a permit to you to take raccoons doing damage.

Friend Harold Pratt of Ithaca says that a sure-fire way to take care of Brer Coon is an electric fence—one strand 12 inches high, another 6 inches high.

Livestock Sales — At a recent Empire Livestock sale at Caledonia, N. Y., 641 total cattle were sold, 552 calves, and 232 lambs and sheep. In the period January 1, 1917 to December 31, 1962, Empire has paid to farmers and dealers \$211,453,237 for livestock consigned and sold by them.

Water Supply — It is estimated that more than 750 populated areas in New York State, mostly small villages and unincorporated communities, do not have an adequate supply of water. A water survey committee has been formed to assist these communities. Enquiries can be sent to the Farmers Home Administration supervisor, the Agricultural Stabilization and Conservation Service office, or the Soil Conservation Service office in any county.

Star Farmer — Named Star Farmer for the North Atlantic Region was Robert A. Cummins, Warsaw, New York. Robert is now a partner in the farm where he first started working in the fall of 1955, and has been instrumental, through his FFA training, in instituting many changes and improvements. The award includes cash for \$500, and the opportunity to be named Star Farmer of America in October. Congratulations, Robert!

Field Day — Nearly 25,000 people came to Selignan Farm near Prattsburg, N. Y. to attend the Empire State Potato Club Field Day. Exhibitors and dealers all spoke enthusiastically of the event, which featured displays of field machinery, farmstead equipment, and items manufactured by other farm suppliers.



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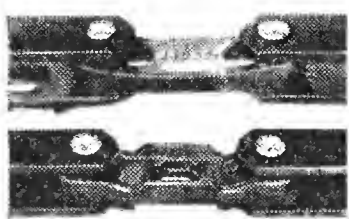
You'll save yourself a heap of work, a lot of time, and considerable labor cost by buying the very finest quality barn cleaner and take it from Badger, the leader in barn cleaners for over 15 years — *you can afford the best.*

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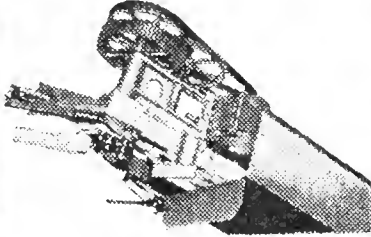
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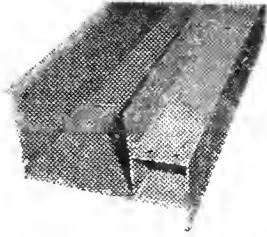
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SLOTTED FLOORS FOR SWINE

Here's a housing arrangement for hogs that is gaining rapidly in popularity.

SLOTTED floors for swine are growing in popularity, mainly because of the reduction in the amount of bedding and in the labor required. Although the investment per hog is higher and the building shell more expensive, the saving in cleaning labor usually justifies the extra investment. Despite their advantages, though, slotted floors don't replace good management.

Kinds

One of the first questions to be decided would be whether to install a slotted floor over the entire area or to have part of the floor solid and part slotted. Before making the decision, compare the total cost of different installations considering the kind of feeding equipment, pen size, and the management program you plan to use.

Pens with only part of the floor slotted permit the feeders to be placed on the solid part of the floor. In this case, long, narrow pens are suggested, with enough animals in each pen to force them to use the slotted floor area. Suggested allowance is 4 to 5 square feet per 50 pound pig; 5 to 8 square feet of floor area per 150 to 200 pound pig.

The "ideal" slot width is a compromise between the smallest opening that permits satisfactory self-cleaning and the largest opening that won't damage the pigs' feet or legs. This compromise seems to be about $\frac{3}{4}$ to 1 inch. Use the wider spacing with slats more than 3 inches wide. Even for baby pigs, the 1-inch slots are

better than closer spacings because the pigs' feet are less likely to get caught.

With completely slotted floors spilled feed is less noticeable—and not recoverable. It's important to use feeders that can be adjusted to prevent excessive feed waste.

Materials

Wood, particularly oak, is most commonly used for slats, but other hardwoods such as elm, hickory, and maple can also be used.

Concrete is one of the most durable materials, costing more than wood but less than steel. However, because of concrete's durability, cost per year of use is likely to be less than for other materials at present prices.

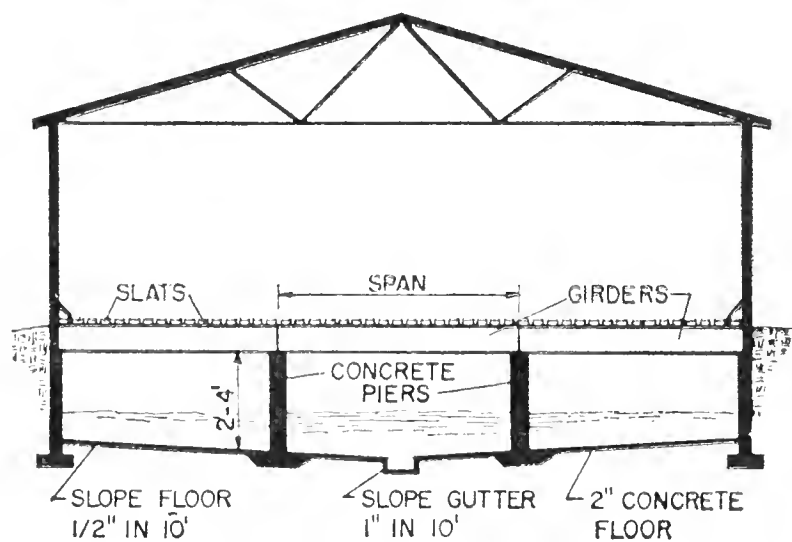
At present **steel** is more expensive than either wood or concrete, but it is easily cleaned, and is smooth and non-porous. With ordinary steel, rusting is a problem—in some cases ordinary steel bars have lasted only three to four years—but corrosion-resistant steels now being tested may eliminate the rust problem.

Type of Building

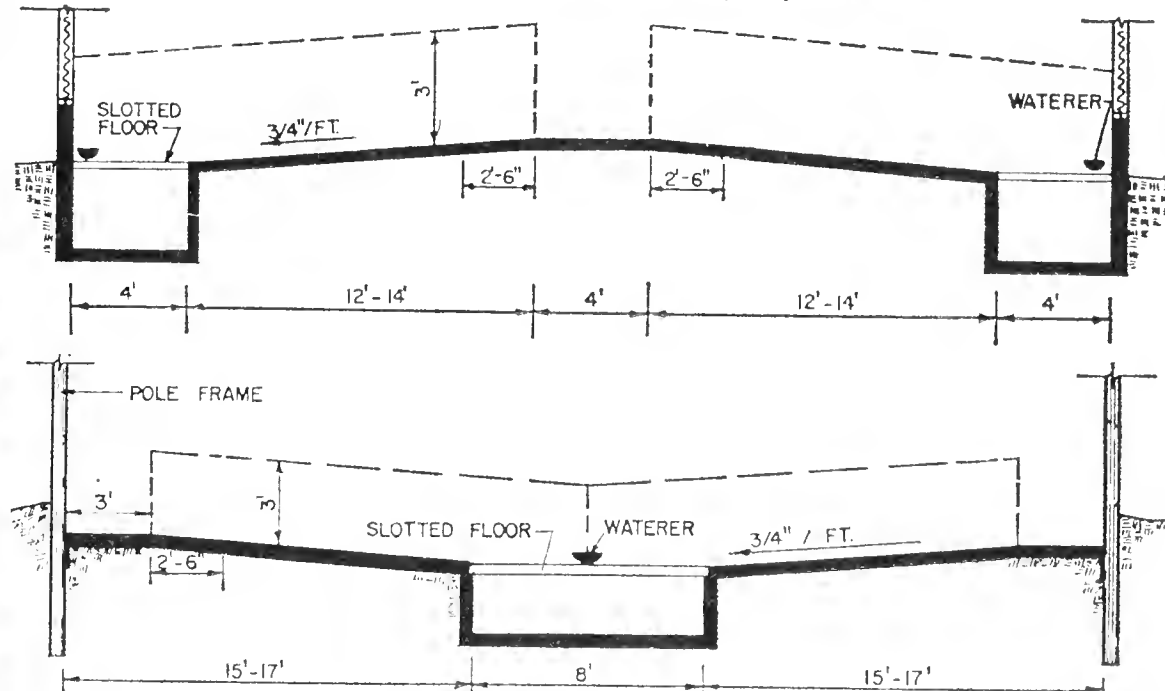
Slotted floors can be used in any building that has good insulation

(Continued on Opposite Page)

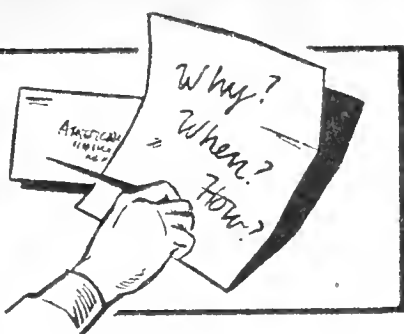
Design for completely slotted floor.



Two floor sections for buildings with partly slotted floors.



The QUESTION BOX



We would like to convert our barn into apartments. How do we go about deodorizing it?

After all the debris has been removed, air the building well and scrub the floor thoroughly with a strong solution of hot water and lye. A 5% solution has been suggested as being suitable in removing any organic material. Rinse floor with clear water and let dry. Keep doors and windows open if weather is suitable.

Vacuum out loose dust over windows and doors; since lice, mites, etc. are suspect, use a cleaner with a disposable dust bag. Spraying the building with lysol is suggested, it has a strong odor, but this disappears quickly. Keep windows and doors closed for at least 24 hours for maximum benefit.

Your final stage should be the sprinkling of deactivated powdered charcoal generously over the floor—working your way out of the building as you proceed to avoid grinding the charcoal into the floor. Keep the building closed tightly for another 24 hours. If odor lingers, leave it closed for another 24 hours.

Remove the charcoal with a vacuum — working your way into the area. A day or so of air and sunshine before starting construction should

then complete the task. — *Leslie Phelps, Cornell University Housing and Design*

Could you tell me more about the "New Polaroid Peach"?

The "Register of New Fruit Varieties Up to 1961" by Brooks and Olmo does not list the Polaroid peach. Those people at the N.Y.S. Agricultural Experiment Station, Geneva, engaged in peach breeding and variety testing, have no record of a peach variety under the name Polaroid. We in this department know of no peach bearing this name.

One might wonder if this is one of those cases where a name is pulled out of "the hat" for advertising purposes and the person who orders gets trees of anything available. This is a rash statement. However, such cases have been so frequent that the late Professor Blake of New Jersey, one of America's leading peach breeders, had his own terminology for re-named peach varieties. He called them "old mares." — *M. B. Hoffman, Cornell University*

How can I stop ice from forming on the eaves causing water to back up and damage walls?

Consult your local power company for directions to install an electric heating cable along roof edges.

Is it necessary to wet goose eggs before and while the eggs are being hatched?

It is true that goose eggs generally hatch better if they are dampened during the hatching or incubation period. You can dip the eggs twice a week in water at a temperature of approximately 100 to 105°F. for about one-half minute. Or you can spray these eggs with a knapsack sprayer, or if you only have a few eggs you could just flip some water on them.

This should be done regularly until the last three or four days before hatching. It tends to help soften the shell and make it easier for the gosling to get out. — *Charles Ostrander, Cornell University*

Can poultry and egg containers carrying USDA grades or inspection marks be re-used legally?

Only if the marks are removed or obliterated.

Will cows do better on conditioned and softened water?

Results of research, in which natural or "hard" water was compared to softened water, have shown no significant differences in regard to milk production, body weight changes, or water intake of cows. The degree of water hardness is variable in different locations; however, taking into consideration the chemical changes in the water during softening, there does not appear to be any known physiological basis for expecting superior animal performance from softened water.

Depending upon the degree of hardness, natural water may interfere with cleaning and sanitizing dairy equipment and contribute to

increases in milkstone formation. If this degree of hardness is a possibility, you should check with your county agricultural agent or dairy fieldman to find a reliable person to test your water supply and make sound recommendations. In cases of limited hardness, proper selection of cleaning compounds are adequate; with very hard water, water softening equipment may be indicated. — *Professor William G. Merrill, Dept. of Animal Husbandry, Cornell University, Ithaca, N. Y.*

SLOTTED FLOORS

(Continued from Opposite Page)

and ventilation for controlling temperature, moisture and odors. Two inches of insulation for the walls and three inches for the ceilings is recommended.

Ventilation needs to be of a capacity as great as 100 cubic feet per minute for each market-size hog in hot weather. A water sprinkling system may also be needed. In winter, ventilation necessary to remove moisture and harmful gases is needed in the range of 10 to 15 cubic feet per animal per minute, with a minimum ventilation rate of 6 to 8 cubic feet per animal during the very cold weather. In closed buildings, some emergency means must be provided to admit fresh air in case of power or equipment failure—and an alarm system to warn of such emergency is recommended.

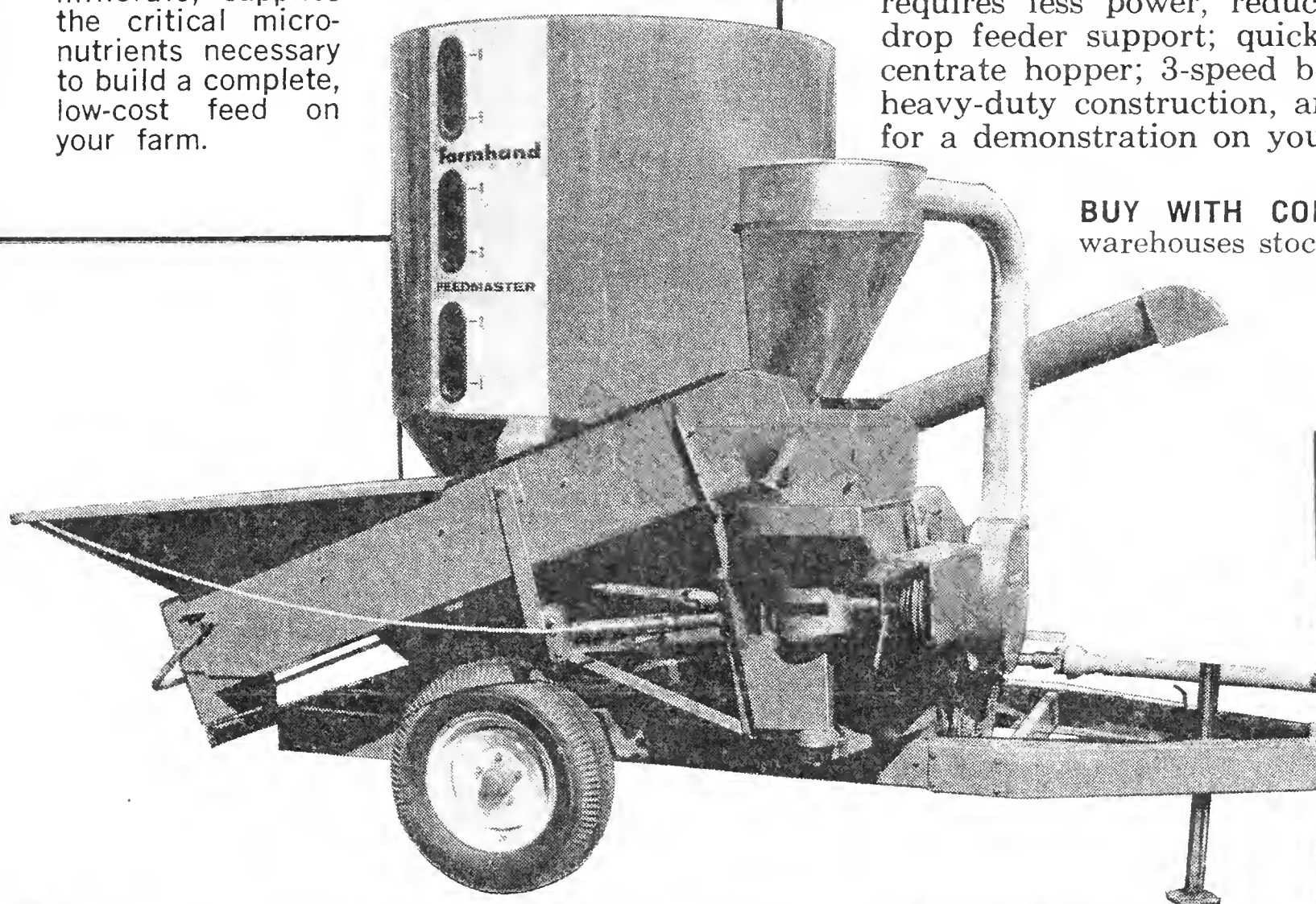
Working drawings of the various types of construction for slotted floors are available from Professor Fred W. Roth, Iowa State University of Science and Technology at Ames, Iowa.

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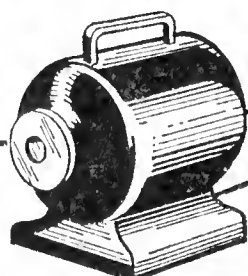
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Southwest Holiday--1964

WE ARE HAPPY indeed to announce our first tour for 1964, a wonderful three-week holiday to California and the Southwest. From the moment we leave on January 18 until our return, February 9, every moment will be packed with thrills and adventure.

Here is a brief summary of the itinerary we offer you in cooperation with the Travel Service Bureau of Needham, Massachusetts.

ALL ABOARD. We board our pullman and are off for a carefree vacation in sunny climes! We greet old friends and make new ones while traveling south through Kentucky and Tennessee.

NEW ORLEANS. Our first feature is a day of sightseeing in this fascinating city, which is a mixture of the old world and the new. Those who wish will have a chance to dine at one of the famous restaurants in the French Quarter.

HOUSTON. We spend a day in this marvelous city where everything is done "Texas-size." Among other things we'll see the Houston port and San Jacinto Battlefield Monument, tallest in the world.

CARLSBAD and the CAVERNS. We travel westward through the vast plains of Texas to Carlsbad, New Mexico. There we explore Carlsbad Caverns, a true adventure such as we have never had before.

GRAND CANYON. Whether or not you have visited this awesome and magnificent National Park before, you will enjoy every mile of the sightseeing drives. And don't forget to bring your cameras, for here is a photographer's paradise.

PHOENIX. Another day in the colorful Southwest exploring the Salt River Valley and the Indian Reservation, lunching at a famous resort hotel of the Arcadia district.

LAS VEGAS. From here we make an excursion to Hoover Dam and the Lake Mead Recreational Area where a government guide will explain the operation of the dam and power station.

DEATH VALLEY. We arrive in California and drive northward to Badwater, the lowest point in the Western Hemisphere—280 feet below sea level.

LONE PINE and RIVERSIDE. One extreme to the other! From Lone Pine, famous as a Hollywood location site for western movies, we also obtain a fine view of Mt. Whitney, highest point in the United States! We stay overnight at Riverside, and the next day take a tour of San Juan Capistrano and its famous Mission, the magic kingdom of Disneyland, and Knott's Berry Farm.

HOLLYWOOD. We travel through Pasadena and Glendale to spend two nights in the movie capital of the world. We will see many of its famous sights, including a tour to Forest Lawn and Farmers' Market.

SANTA BARBARA and MONTE-REY. We travel northward along the old Coast Mission Trail to Santa Barbara and continue along the beautiful coast highway to Monterey and the famous Seventeen Mile Drive along the Peninsula.

SAN FRANCISCO. Another day's journey brings us to this renowned and most interesting city. Our sightseeing includes a trip to Telegraph Hill for a view of the city after dark.

HOMEWARD BOUND. Our return trip across the great plains of the western states gives us a chance to reflect on the magnificent sights and adventures this tour has brought us.

You will find below a coupon to fill out and send in for your free copy of the printed itinerary. This will give you information about prices and many other details you may be wondering about. And, of course, as with all American Agriculturist tours, your ticket is an all-expense one.

Because our California tours are always so popular, we urge you to send in your reservation soon.

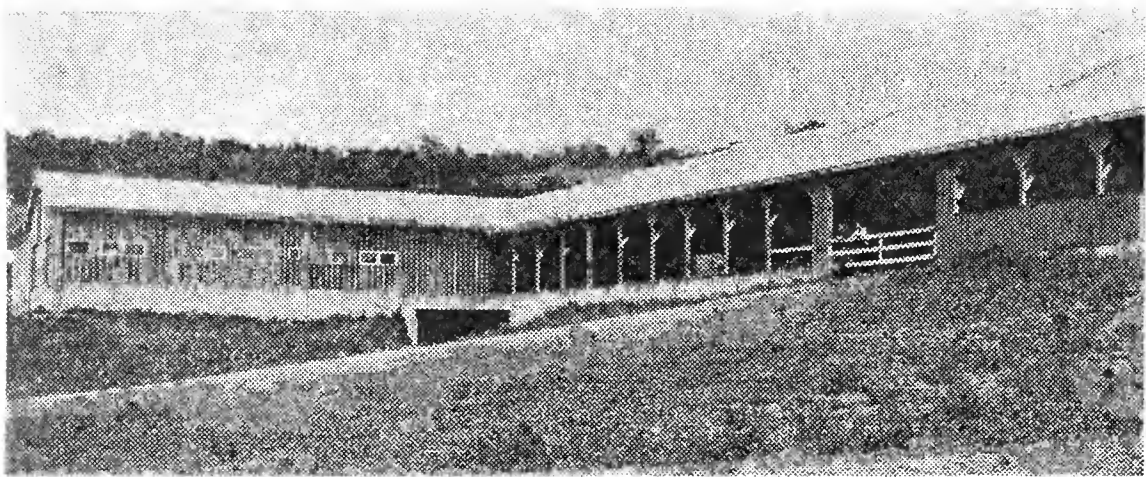
A. James Hall
American Agriculturist
Box 367-S
Ithaca, New York

Please send me, without any obligation on my part, a copy of the itinerary for your Southwest Holiday Tour, January 18-February 9, 1964.

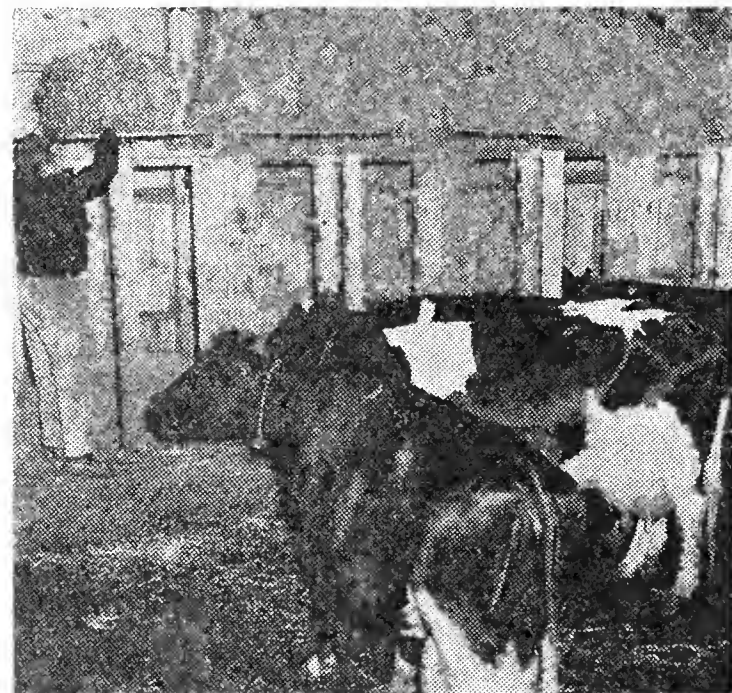
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The Jeffery barn is open to the south; the manure pit where spreaders are loaded is in center. Building extending to left houses an eight stall milking parlor, pelleted grain that flows by gravity to the parlor, and two bulk tanks with a total capacity of 1,250 gallons.



Bill Jeffery feeds hay to his herd along feeding area on north wall. Only a 1 to 2 day hay supply is stored in the basic structure.

FREE STALL BARN

ON OCTOBER 24, 1962, William Jeffery of Millerton, New York, began using a new free stall barn designed by Rodney Martin of the Hood Company. It measures 48' x 372' not including an existing pole barn 52' long that was tied into the new construction on one end. The barn is open to the south; manure is scraped into spreaders parked in a manure pit.

At present the herd of 89 milkers is split into two groups in the winter, one pen stabled in the pole barn mentioned; the other group uses 64 free stalls in the new part. During the summer, the entire herd runs together and cows can choose whether they want a bedroom of their own or prefer the wide open spaces of the pen stable.

Plans Changes

Bill's goal is 150 milking cows; he plans on converting the pen stable into a free stall setup. Stalls have a gravel floor held in place by a curb rising 10" from the concrete floor between rows of stalls. Sawdust is used most as bedding; Bill prefers it to straw because spreaders can handle manure containing sawdust more easily, and also because sawdust can also be spread in the barn with a tractor blade. Sawdust is put in the stalls twice a week during the winter; a check is made along stalls once or twice a day to remove the few droppings that don't quite clear the curb.

Greenchop is fed twice a day during the summer in two feed bunks, at which cows can feed on both sides. The hay feeding area is along one wall, 225 feet in length. Silage bunks are 5 feet wide overall; a special grout mixture was used to surface the inside area of these bunks. A manure spreader with a side unloading attachment and high sides is used to haul greenchop; the other spreader similarly equipped is also used to fill silo.

Bill has had a good chance to com-

pare free stall housing and conventional loose housing. He very much prefers free stalls, says, "Milking is faster with cows in the stall arrangement because it's easier to get their udders clean and ready for the milker. I've had fewer injuries among the animals in stalls; there is less commotion there when cows are in heat. More cows fit in the space available, and require a lot less bedding than with pen stabling."

This barn is similar to one recently built on the Paul Varney farm at Turner, Maine.

LIME REQUIREMENT

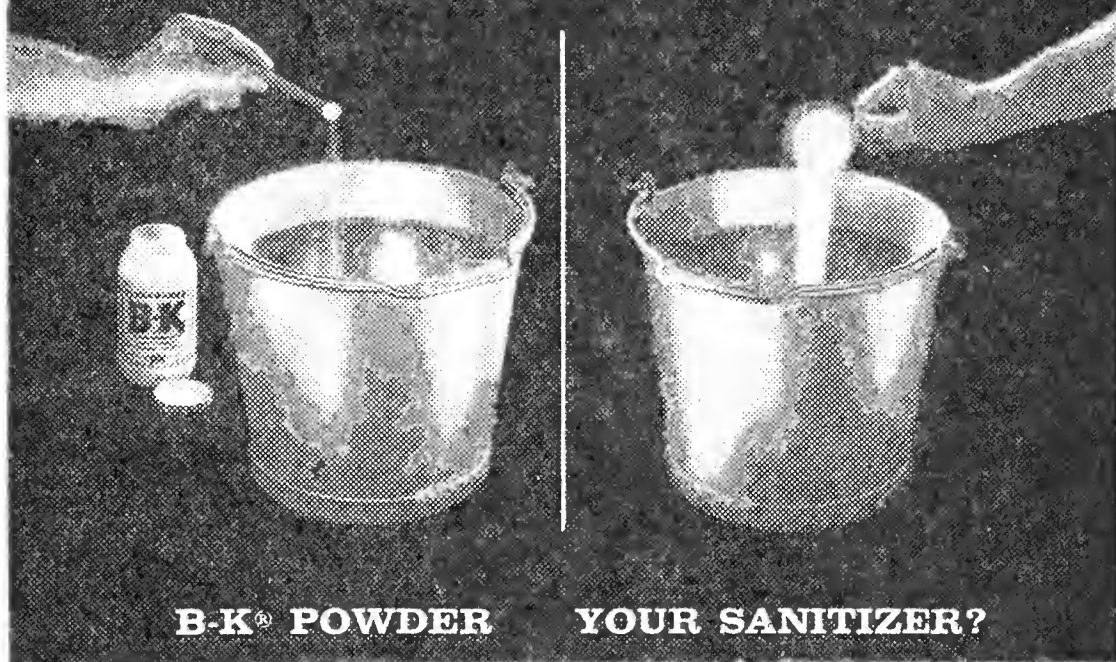
Do all soils which have the same pH need the same amount of liming material, is a question frequently raised with Agronomists and Soils Specialists.

Experiments and practice show that usually a sandy soil will require a much smaller application of liming material to bring it to a satisfactory pH level for a specific crop than does a fine-textured clay or muck soil. This is due to the fact that the fine-textured soils usually contain large amounts of reserve acidity which must be neutralized before the pH of the soil can be raised. One of the principal reasons for this is that these soils usually have a much higher content of organic matter in which the reserve acidity is stored.

A frequently overlooked fact is the one that pH is not a measure of total acidity of the soil; it is only a measure of the active acidity, and the reserve acidity is not being taken into account. This, then, is the reason why people who do not fully understand the chemical reactions created in the soil by the addition of different minerals are often confused when two soil samples with an identical pH have different quantities of liming material recommended by the technician.

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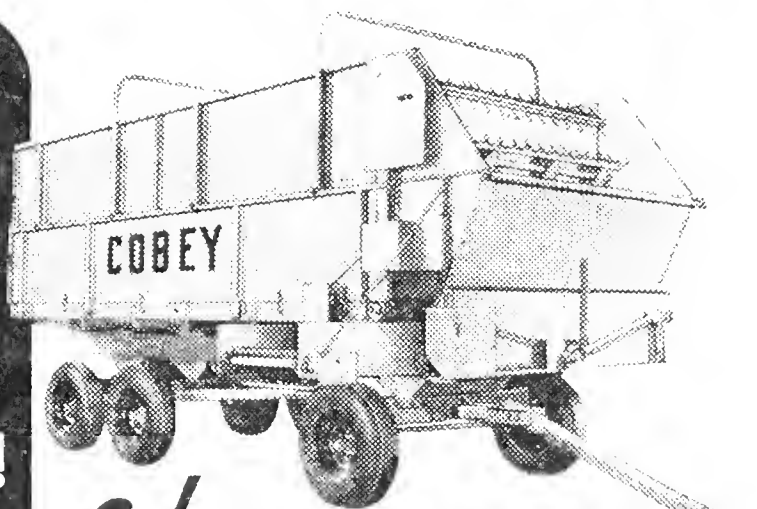
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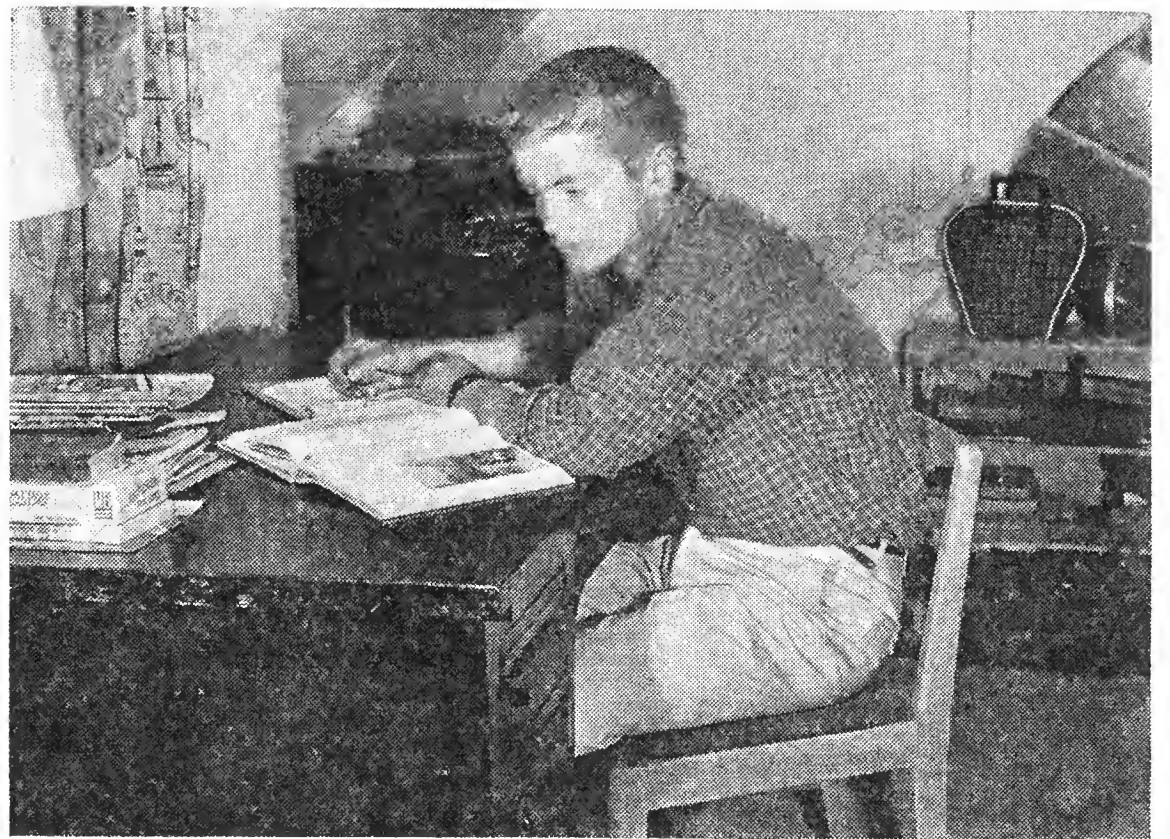


Photo: Institute of Life Insurance

ALL over America this September, millions of boys and girls—more than ever—will be going to college. But it's sad to know that for every 100 who enter college, 40 will fail to graduate. Second only to sickness and death, this is just about the worst tragedy that can happen to a young person and to his parents. From his earliest years, both the student and his parents have planned and worked for the day when he will enter college. Now, he has failed. All of his plans and dreams—and those of his parents—are upset. When he returns home, he will find that most of his friends have gone on to college or to a job. So both he and his parents taste the bitter gall of failure.

How can this tragedy — or at least the greater part of it—be avoided?

During the past two school years, I have had over 550 hour-long interviews with young college students, most of them freshmen. The large majority of them had never before been away from home for any length of time. From this counseling experience, and because Mrs. Eastman and I had three boys of our own who went to college, and also because I was once a high school principal, I think I can make some suggestions, both to you parents and to students who are entering college this fall—suggestions that will help to prevent the tragedy of college failure.

He Is On His Own

In the first place, both parents and students must recognize the fact that the adjustment from high school and home to college and dormitory life will be the most radical and difficult one the student is ever forced to make. His way of life and of studying will be entirely changed. Both in the high school and in the home, the student's study habits and his social life were more or less guided by his teachers and his parents, but when he goes to college, all this is changed. **He is on his own.** He is no longer a kid. At 17 or 18 years of age, he is an adult and college authorities so recognize him and expect him to make most of his own decisions. **How** he makes those decisions — especially during the first few weeks of college—will determine his success or failure.

Many parents make the mistake of trying to run the student's life after he enters college. Many failures are due to parent interference. If you have not taught your boy or girl what is right and what is wrong, and if you have not taught him to stand straight and tall on his own two feet, then it is too late after he leaves home.

The college student's teachers assign his work and leave him alone. Then, because no one is pressuring him to study or checking up on him at first, he may think that college life is a snap, a "ball" and that all he has to do is take in the lectures and race around having a good time.

First Weeks Tell the Story

But alas, then come tests and examinations. Because he has not studied, the student fails them or gets so far behind in all the tremendous amount of reading that he has to do that he becomes utterly discouraged and, unless he wakes up in time and gets down to busi-

ness, the student is on his way to failure and to joining the great army of bustouts. So **the importance of those first ten weeks cannot be overemphasized.**

The successful passing of examinations and of his whole life in college depend on the student's getting to work with the very first assignment. I have seen many an intelligent boy or girl, who got by in high school without much studying, come to college with the same idea. But I have seen none who got by in college without really working. I don't care how smart a student is, without hard work from the very first day he enters college, he cannot hope to succeed.

Importance of Schedule

Another point that needs emphasis with all college students—and especially freshmen—is the **necessity of a good schedule.** No one, great or small, has more than 24 hours in a day. The way we use that 24 hours determines our success or failure. The first thing for a freshman to do, therefore, is to **schedule his time** for both the day and the week. This includes a full 8 hours of sleep for most. Many students try to get along with less and then wonder why they can't follow their professor in class, or why they can't concentrate when they try to study.

Late studying, after 11:30, is not much good. Neither is cramming for examinations. We start passing examinations on the first day of the first semester.

An organized schedule should include by all means **recreation, exercise and proper nutrition.** Too many students go without breakfast which is a mistake, for breakfast is the most important meal of the day. Others patronize the snack bars too much and then wonder why they have too little appetite for their regular meals. Everyone, and in particular young people, needs exercise. More and more, scientists are recognizing that the physical is very close to the mental. A good student is a healthy one! Plenty of **sleep, right eating, and exercise** are necessary to maintain good health and should be a regular part of a student's schedule.

Work Is the Answer

Considering the great adjustment a student has to make from home and high school to dormitory life and college, it is no wonder that many of them are desperately lonesome and homesick. The answer to this is **work.** If a student will settle down from the very first day to hard work and make a definite effort to make new friends, the homesickness will

(Continued on Page 41)

TESTED RULES FOR SUCCESSFUL STUDY

1 Organize whole 24 hours into a schedule allowing time for **sleep, meals, recreation, exercise and study.** Allow an average of two hours of study daily for each classroom hour. Revise schedule as experience dictates.

2 Have a **regular time** for study and keep it exactly.

3 Study is **work.** Sit squarely at your desk. Sliding down in your chair or lounging on your bed is not studying. Practice concentration; put day-dreaming and other distracting thoughts out of your mind. Learn not to see or hear what the other fellow is doing.

4 **Review** the preceding lecture notes and preceding assignment before studying new assignment or attending next lecture. **Review and organize** lecture notes before you sleep.

Start reviewing for examinations 5 or 6 weeks before the exam. The night before is too late.

5 Preview or "size up" your assignment before starting to read it. Preview by leafing over pages, looking at pictures, graphs, titles and crossheads. As you preview, ask yourself questions—the answers to which you will find when you start reading.

Ask **WHO, WHICH, WHY, WHAT, WHEN, WHERE.** This question method will create interest in the new assignment and help you to concentrate.

6 Always **study your hardest subject first.** Tell yourself that your most difficult subject is a challenge, not a problem. Interest is the basis of all learning, and interest in any subject, no matter how difficult, can be built by persistence and practice.

7 **Avoid** resentments of parents, students, teachers, or subjects. Resentments and prejudices close your mind and interfere with good work.

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M396
10-18

9411
9-17

4633
 $12\frac{1}{2}$ - $22\frac{1}{2}$

9292
36-50

M158
 $12\frac{1}{2}$ - $22\frac{1}{2}$

9127
S-10-12
M-14-16
L-18-20

9032
10-20

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Fall and Winter 1963

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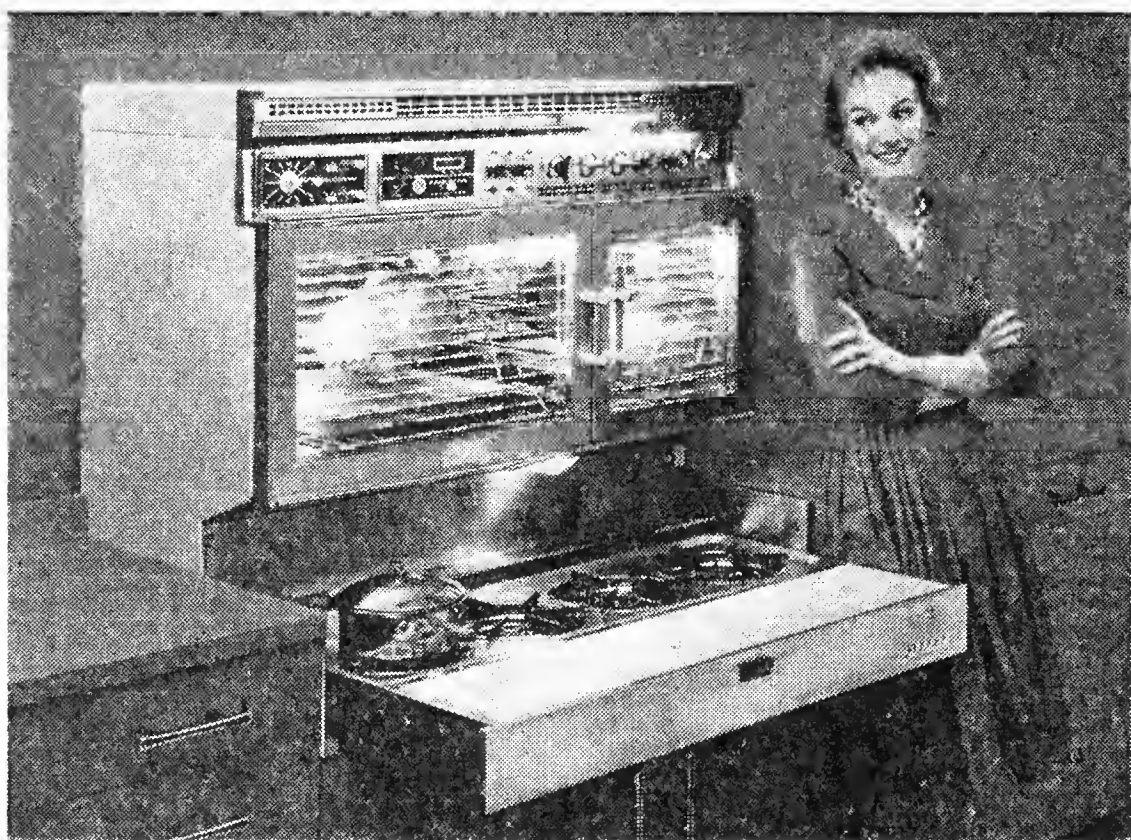


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More Convenient Kitchen For \$300

By AUGUSTA CHAPMAN, Home Editor

MODERNIZING your kitchen can be costly, but sometimes a more convenient and efficient arrangement can be achieved at small cost, as in the case of the Walton Aubertines of Cape Vincent, N. Y.

Their farm kitchen was a rectangular room, 14 x 17 ft., with all of the work centers, except refrigerator, on one side of the room. To get to the refrigerator (placed on opposite wall, next to door leading to living room), it was necessary to go around a large kitchen table. Also, anyone coming in the back door had to cross the room diagonally to get to the living room—right in the path of meal preparations.

A further disruption occurred at meal time when the men washed at the kitchen sink in the center of the work area.

Two neighborhood discussions on kitchen arrangement gave Mrs. Aubertine the incentive needed to take a good look at her kitchen and to decide how she could change it for the better. More work space out of the line of kitchen traffic was needed, and she decided to get it by using part of a large, empty woodshed that adjoined the kitchen wall on the side where the sink and range were.

Part of the wall between the two rooms was demolished, and a new U-shaped kitchen work area, 6½ x 8 feet, was created. The electric range and refrigerator were moved to this new section, but the sink was left in its original location (see picture below) to save plumbing expense, and also to give the men a place to wash without interfering with the rest of the work area.

New wall cupboards and base cabinets with formica counter tops were installed, and the kitchen redecorated. The walls in the dining

Moving refrigerator from behind table in old part of kitchen solved traffic problem and made roomy dining area.

area are a silver grey. In the new work area, they are light green tile. Counter tops are red, and cupboards, woodwork, and kitchen table and chairs are finished in maple.

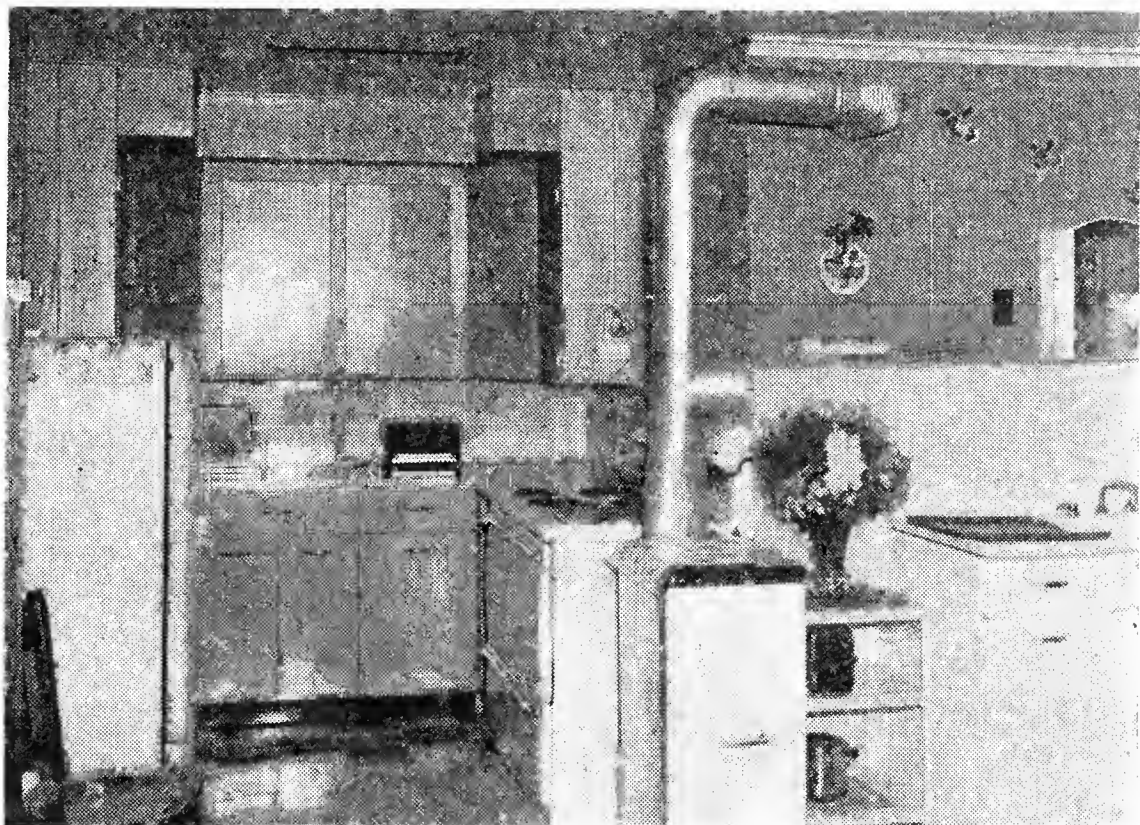
All of the remodeling and redecorating was done by Mr. and Mrs. Aubertine and their sons Paul and Walton, Jr. Most of the wood used came from the farm. The plywood for the cupboard doors was purchased.

Although the planning and execution of the remodeling covered a period of two years, the actual work was done in two months, whenever the men had time to work on it. Since only the range and refrigerator were to be moved to the new U-shaped section, it was not necessary to tear up the main part of the kitchen during those eight weeks.

Total cash outlay was \$300, and Mrs. Aubertine says she finds the new arrangement infinitely more convenient and enjoyable than the old one.

Two more conveniences have been added since the picture below was taken. The wood stove used to heat the kitchen has been replaced by a heavy duty electric heater, and an automatic dishwasher has been installed at the end of the sink. About the dishwasher, Mrs. Aubertine says:

"I cannot tell you how much I enjoy the dishwasher. It just seems to save hours of work."



Picture shows the new U-shaped work area in the Aubertines' kitchen which was achieved by knocking out part of wall between kitchen and woodshed. A heavy duty electric heater is now used to heat kitchen in place of wood stove shown in picture.

— American Agriculturist, September, 1963

Food For A Crowd

By Alberta D. Shackelton

THIS IS THE season when lunches and suppers begin to play an important role in many church, community, and organization programs. Frequently quantity cooking is done for fund-raising bake sales, and what group meeting can end without some kind of refreshments? Fall and winter weddings and later holiday family reunions often require planning for large numbers of people.

Organization—the secret of success

The first step in planning and serving food to a crowd is the selection of a capable general chairman (or co-chairmen if desired)—one experienced in serving food to large numbers. Such a person will be in control from start to finish, to organize the whole project, coordinate various phases and steps, offer suggestions and help where necessary, and even, in an emergency, to step in and take over a job.

The general chairman will decide the committees needed, choose the best fitted person as head for each committee, and may help this person select members for her group who will work well together. The chairman will also figure costs and profits, and it is her responsibility to see that good working conditions prevail to prevent accidents, and that sanitary practices are observed in handling the food.

Committees

The larger jobs for which committees are needed include General Planning, Food Preparation, Food Serving, and Clean Up. Additional committees may be set up for reservations and ticket sales, publicity, and decorations, although these duties may be included in the larger committees.

The Planning Committee includes the general chairman or co-chairmen and all committee heads. This group will choose a well balanced menu, simple but attractive — one that can be easily and efficiently executed at minimum expense, one in keeping with the occasion and season, and suitable for the food preparation and serving equipment available. This committee will figure the budget, determine price of the meal, and purchase the food.

The Food Committee is responsible for both cooking and dishing up the food. Smoother working conditions will prevail in the kitchen if the chairman sees that each worker has her own copy of the menu, with tested recipes and adequate working space for the food she is to prepare. The chairman may suggest time and work-saving shortcuts, and should be watchful for ways to prevent accidents and to see that foods are handled in a sanitary manner.

The Serving Committee determines the best type of service—buffet, cafeteria, table service, or perhaps a combination; arranges for hostesses and waitresses and plans their duties; sets tables; arranges places for committee workers to eat before guests are served; serves and clears away the meal and, if these duties are assigned to this committee, sells and takes tickets and arranges for decorations.

The Cleanup Committee is responsible for preparing dishes, silver, and glassware for washing; washing and sterilizing serving equipment; returning equipment to

proper storage places; planning for laundry of towels, and leaving the kitchen and dining room in good condition.

Bulletins Available

You will find several or all of the following bulletins and books helpful when you are called upon to help "feed a crowd" in your community. Why not suggest to your church or favorite organization that they collect these materials and keep them on file to use from time to time.

The following Cornell Extension bulletins are available from Mailing Room, Stone Hall, Ithaca, N.Y. Residents of New York State are entitled to a single free copy of each one listed, unless the words "no free distribution" appear. Non-residents are required by New York State law to pay for the bulletins, and in each case, the charge is given.

Postage stamps are accepted for payment if order comes to 25 cents or less. Checks and money orders should be made payable to Cornell University. Some of these bulletins are also available from your County Home Demonstration Agent.

Selecting Equipment For Your Community Kitchen — Bulletin 856. 5 cents.

Work Safely In Your Community Kitchen — Bulletin 843. 5 cents.

Sanitary Food Handling In Church, Community Center, and Camp — Bulletin 844. 5 cents.

Pricing A Community Meal — Extension Leaflet 6. 5 cents.

Community Meal Management — Bulletin 42. No free distribution. 50 cents.

Hot Water For Community Kitchens — Bulletin 1088. No free distribution. 25 cents.

Soups And Main Dishes For Your Community Meals — Bulletin 35. No free distribution. 25 cents.

Hot Breads For Your Community Meals — Bulletin 925. No free distribution. 25 cents.

Cookies For Your Community Meals — Bulletin 970. No free distribution. 25 cents.

Desserts For Your Community Meals — Bulletin 962. No free distribution. 25 cents.

Quantity Salad Preparation — Leaflet 14. 5 cents.

Gravies And Sauces For Your Community Meals — Leaflet 12. 5 cents.

Vegetables For Your Community Meals — Leaflet 13. 5 cents.

Quantity Coffee Preparation — Leaflet 15. 5 cents.

Purchasing Food For 50 Servings. — Bulletin 803. No free distribution. 25 cents.

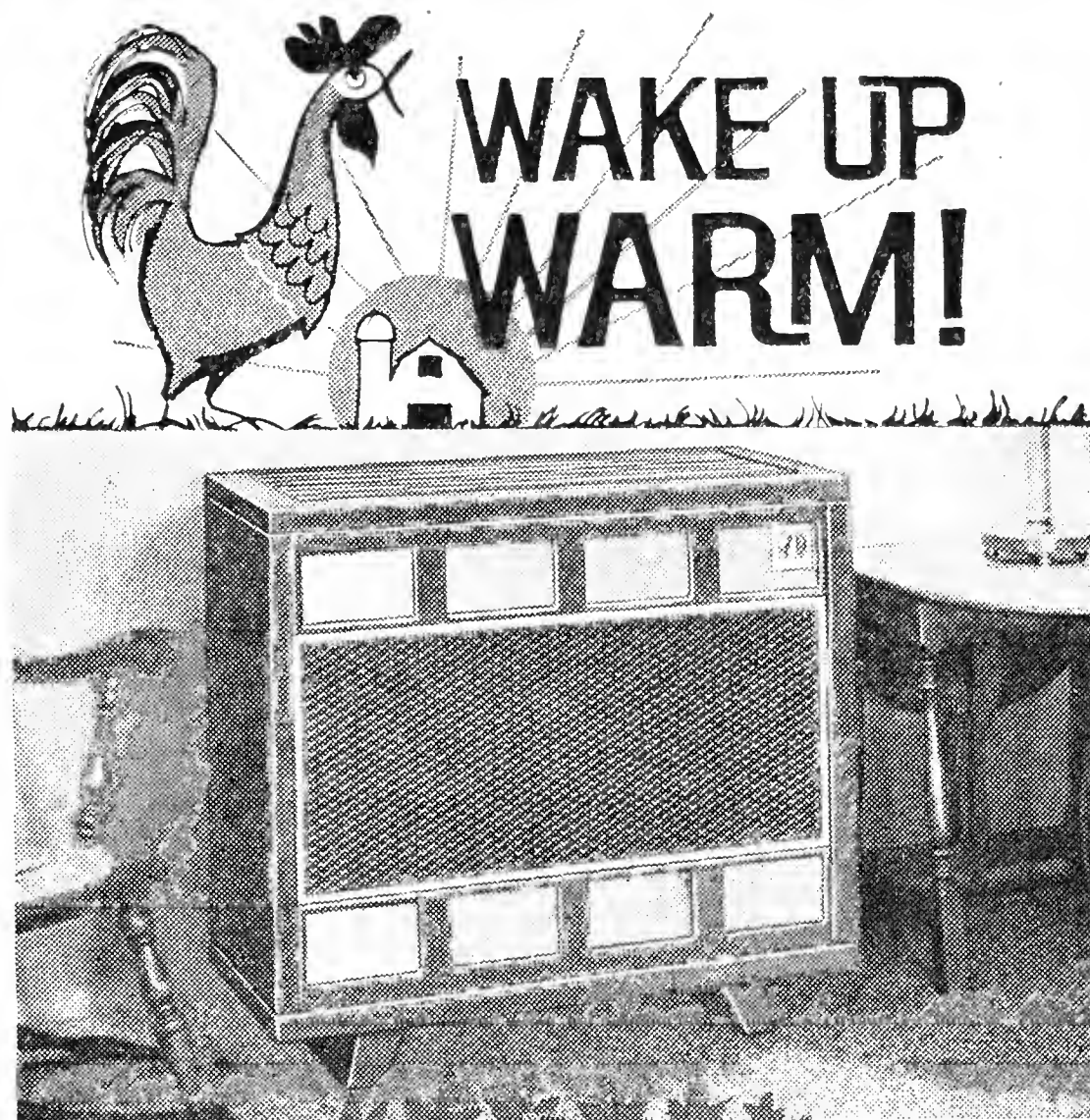
Quantity Recipes From Meals For Many. No free distribution. \$1.00.

Other available materials on feeding a crowd include the following:

Recipes For Quantity Service — HERR-5. \$2.50 per copy from the Superintendent of Documents, Government Printing Office, Washington 25, D. C.

Quantity Recipes. \$1.00 per set of 36 recipes from National Dairy Council, Chicago 6, Ill.

(Continued on Page 41)



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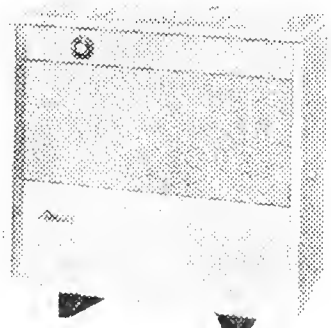
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Garden Talk

By NENETZIN R. WHITE

LAWNS

SEPTEMBER is really a key month for lawns. The care you give yours now will enable you to have a picture-pretty lawn next year.

First of all, what is the weed situation? Do you have crab grass, vine-type weeds, broadleaf weeds and other pests? Let's knock them out first so they will not go to seed. Then, your reseeding can fill in the bare spots. And right here I should say that while you can spot with weed killers, it is rarely a good procedure. Your eye cannot detect the tiny plants that have just germinated. But by going over the whole lawn, you'll get all the weeds.

There are numerous weed killers on the market, but we feel that the dry products, applied with a fertilizer cart, do the best job and with the least chance for error. True, your cart setting should be checked frequently with a simple gauge, but this is far easier than wrestling with sprayer complications.

If you must spray, we like the hose-gun-type sprayers which work on the Venturi principle, applying the herbicide in specified amounts according to directions. Don't stop to chat with your neighbor while doing this, or you can have disastrous results. Also, be sure the sprayer is thoroughly washed with a detergent and ammonia if used later for plants.

To get back to the dry herbicides, sometimes you will find combinations of two or more products that will kill all types of weeds. Thus far, however, we have not seen combinations that do as good a job as individual ones—one type for broadleaf weeds, another for vine-type, and a third for crab grass. Today these products and many fertilizers come in lightweight carriers such as vermiculite. They are clean, easy to handle, and less bulky than the old types. Follow directions explicitly for perfect results. Some herbicides should go on when the grass is damp from dew or sprinkling, but rain within twenty-four hours will sometimes kill the effectiveness of the applications.

Reseeding

Now that we have killed the weeds, let's reseed even half or quarter rate with a good perennial seed. Blue grass is wonderful for a picture lawn, but it may not be the answer for your soil or for play areas. Consult an authority concerning the best seed for your lawn. Your county agent knows the area well—ask him. Reseeding can also be done with most fertilizer carts.

A good feeding comes next, and even a double one if possible, for lawn grasses make tremendous root growth in the fall, and they need food. Use an organic fertilizer, high in nitrogen—a good formula is 20-10-5. Do not put on a double feeding of a straight chemical fertilizer, as that would probably burn your turf. If you will follow a regular feeding program with an organic or urea-

form fertilizer, you will soon find that you have a wonderful, soft, velvety lawn.

Mow Late

Keep mowing your lawn as late as possible. Grass should go into the winter short to prevent snow mold, fungus diseases, and others caused by matting of long grass. If you have had serious crab grass problems, use a pre-emergence killer. Crab grass is an annual, and a pre-emergence killer, put on in the fall or very early spring, will kill seeds in the soil as they germinate. This is a barrier-type application, so if you expect a lot of activity on your lawn this fall, wait until early spring to make it.

NO LONGER SUMMER

By Ethel H. Harp

The delphinium blossoms mount
Up to their topmost spire,
While the dahlias spend themselves
In lavish golden fire.

If flowers at summer's end
Still put forth their treasure,
I, too, with knowledge of frost,
Will not skimp nor measure.

New Catalog

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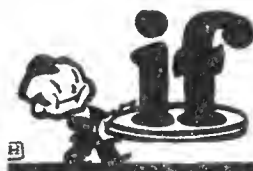
In case after case, while gently relieving pain, actual reduction (shrinkage) took place.

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To College

(Continued from Page 36)

soon pass. After all, no one ever died of homesickness.

Boy or Girl Friends

Another problem of college life, especially in co-educational institutions, is boy or girl friends. Some come to college having a special friend back home. Others get attached to one soon after they enter college. Such a friend can utterly ruin that student's work or can be a goal or ideal to make a student jump in and make a record of which the friend can be proud.

I believe in co-educational institutions because it is natural and right for men and women to associate in college as they will have to in life, but it is much better to know and associate with many people than it is with just one all the time. Complete absorption in one friend leads to daydreaming, wasting of time, and prevents studying. In order to be sure of the "right one" when he or she comes along, it is necessary to know many young people of the opposite sex.

Beware of Resentments

Another problem which prevents many a student from doing his best work is **resentment**. Unless one watches out, he can build prejudices that can stand between him and learning. A person with a closed mind or who is ridden by prejudices and resentments never learns anything.

It doesn't hurt a teacher or a subject to be resented by a student. **It does hurt the student.** If you tell your subconscious mind several times that you hate history or biology or Professor Someone-or-other, then you'd better watch out for your subconscious mind will believe you, and you'll never do well with that subject or professor.

The whole problem of adjusting yourself to college life—its problems and its people—is a matter of using good common sense and good judgment which you are supposed to have by the time you are 17-years-old.

In the several hundred college students—mostly freshmen—who have consulted me in the last two years, there were many who felt overwhelmed and discouraged at first by the almost endless amount of reading and work required for

each subject, so different from what they had in high school. Almost without exception, when the students worked hard and really tried, they succeeded and although their work didn't get any easier, it got much more interesting, and they learned to take it in their stride. They built foundations in their freshman year for making their four years in college the most profitable and happy ones of their lifetime.

Food For A Crowd

(Continued from Page 39)

Catering To A Crowd. 25 cents per copy from Standard Brands, 625 Madison Ave., New York 22, N. Y.

Cooking For A Crowd. 25 cents per copy from Family Circle, Dept. WW, Box 1379, Grand Central Station, New York 17, N. Y.

Following are recipes to serve 50 persons. Double recipes for a group of 100.

CRANBERRY AND ORANGE GELATIN SALAD

(Meals for Many—Cornell)
2½ lbs. raw cranberries
3 oranges, whole
4 apples, cored

5 cups sugar
1½ teaspoons salt
3 ozs. (9 tablespoons) granulated gelatin
2 cups cold water
3½ quarts fruit juice

Grind cranberries, oranges, and apples. Add the sugar and salt and let stand 2 hours. Soften gelatin in the cold water. Heat part of the fruit juice and add it to softened gelatin, stirring until gelatin is dissolved. Add remaining cold fruit juice, cranberry mixture, and mix well. Chill until partially set.

Place in 2 large oblong pans, about 20 or more inches long. Cut each pan into 25 squares. Makes 50 (2½ x ¾-1") servings.

SCALLOPED TUNA OR SALMON (National Dairy Council)

¼ cup parsley
4 slices onion
3 quarts milk
1½ cups butter
1½ cups flour
1½ teaspoons salt
½ teaspoon pepper
5 13-oz. cans tuna fish OR
6 1-lb. cans salmon
1 quart dry bread crumbs
½ cup butter for crumbs

Scald parsley and onion in milk until delicately flavored. Strain. Melt butter, add flour and seasonings. Cook 3 minutes. Add the milk,

stirring constantly, and cook until thickened.

Flake the fish and spread a layer on bottom of a buttered baking dish. Cover with a layer of the sauce and then one of the crumbs; repeat until the pan is filled. Cover with buttered crumbs.

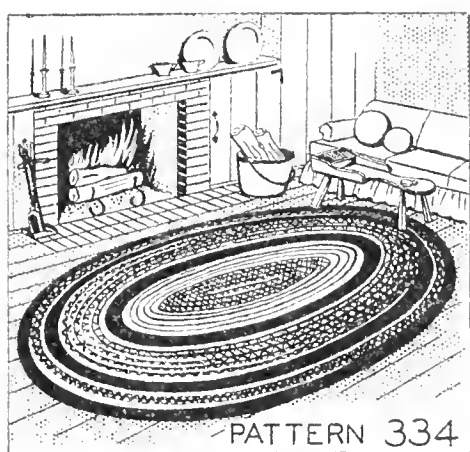
Bake in a hot oven (450°) about 15 minutes or until crumbs are browned. Makes 50 portions using No. 10 dipper.

APPLE CRISP

(Meals for Many—Cornell)

10 quarts apples, sliced
3 tablespoons cinnamon
5 cups water or fruit juice
1½ quarts sugar, granulated or brown
5 cups flour, all purpose
2¼ cups butter

Divide the apples in buttered baking pans. Mix cinnamon and water and pour the mixture over the apples. Work the sugar, flour, and butter with the finger tips until crumbly; then sprinkle the mixture over the apples. Bake in a hot oven (450°) for 5 minutes; then lower the temperature to 400° and bake from 25 to 35 minutes, or until the apples are tender. Serve warm with top milk, sweetened cream or whipped topping. Nutmeg may be added to the milk, if desired. Makes about 55 servings of ½ to ¾ cup.



PATTERN 334

HOME WORKSHOP

Rug making is a wonderful hobby. Pattern 334, which gives directions for braided rugs—oval, round and novelty types—is 35 cents. How to estimate material, dyeing, blending colors, and directions for reversible rugs are included. This pattern is also in the Rug Packet No. 21, which includes directions and full-size designs for hooked rugs, and costs \$1.00. A tremendous value!



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(Continued on Opposite Page)

ADDITIONAL CLASSIFIED ADS

(Continued from Opposite Page)

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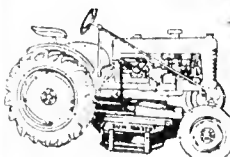
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FACTORY PRICES! Brand new, first quality, fully guaranteed Saw chain in 40", 1/2", or 7/16" pitch. Chain for bar of any saw with cutting length of 12" to 16" only \$10.00, 17" to 20" \$12.00, 21" to 24 \$14.00. Postpaid. When ordering give saw name, bar cutting length, pitch used or number drive links in chain. Send check or money order now to Zip-Penn, Inc., Box 179H, Erie 6, Pennsylvania. Write for savings on bars, sprockets, saw accessories.

BANKING

SAVE AND EARN 4% on your savings at New Jersey's largest savings bank. Bank by mail. We pay the postage both ways: The Howard Savings Institution, P. O. Box 833, Newark 1, N. J. Accounts insured by Federal Deposit Insurance Corporation

TARPAULINS

CANVAS TARPULINS—Direct from factory—reinforced eyelets medium weight. Cut size—7 ft. x 9 ft. \$5.67; 8 ft. x 12 ft. \$8.64; 12 ft. x 14 ft. \$15.12. Write for list of sizes and samples. Our 68th year. Eureka Tent & Awning Co. Binghamton, New York.

CLIPPER SERVICE

CLIPPERS REPAIRED, blades sharpened 90¢ per pair. Earlville Clipper Service, Earlville, New York.

HELP WANTED

\$2.50 PER HOUR or more for part or full time route work. Large repeat orders. Man or woman. Write McNess, Dept. 27B, Box 371, Baltimore, Md.

WELL ESTABLISHED dairy-grain farmer, 56, needs housekeeper-partner. Home security, pleasant working conditions. Please write situation, qualifications needs, picture. Box 514-AW, American Agriculturist, Ithaca, N. Y.

POULTRYMAN WANTED — excellent salary, experienced, dependable permanent, advancement. Brender's Leghorns, Ferndale, N. Y. Call Liberty 1123.

PROFITABLE OCCUPATIONS

INVESTIGATE FIRES, storm damage, accidents for Insurance Companies. Pays up to \$1,000 a month, part or full time. No college necessary. Car furnished; expenses paid. We train you at home in spare time. Keep present job until ready to switch. Pick your location. Men badly needed now. Full information free. Write Liberty School, Dept. C-1679 1139 W. Park, Libertyville, Illinois.

STAMPS & COINS

FIFTEEN PHILATELIC Zoological Specimens 10¢. Approvals. Free Watermark Detector. Crown Stamps, Virgil 311, Ontario.

707 WORLDWIDE Different 25¢ Sensational approvals. Niagara Stamps, St. Catharines 211, Ontario.

25 LARGE AMERICAN Commemoratives 10¢. Accompanying approvals. Free perforation gauge. Linstamps, St. Catharines 111, Ontario.

AGENTS WANTED

SENSATIONAL, NEW longer-burning Light Bulb. Amazing free replacement guarantee—never again buy light bulbs. No competition. Multi million dollar market, yours alone. Make small fortune even spare time. Incredibly quick sales. Free sales kit. Merlite (Bulb Div.), 114 E. 32nd Dept. C-74L, New York 16

EARTHWORMS

FREE PICTURE FOLDER, "How to Make \$3,000 Yearly. Sparetime Raising Earth Worms!" Oakhaven-5, Cedar Hill, Texas.

HONEY

NEW HONEY: Our Famous Clover; New York's Finest; 7 lb. pail, \$1.95, case 6-5 lb. pails \$9.98; above postpaid 3rd zone, 1-60 lb. can \$10.98; 2-60's \$21.36; 5 or more 60's \$10.38 ea. Delicious Wildflower (Wild Raspberry) 1-60 lb. can \$10.38; 2-60's \$21.15, 5 or more 60's \$9.78 ea. 60's FOB. 5% discount 5 or more 60's at honey plant. Sold by ton or pail. Howland Apiaries, Lerkshire, N. Y.

EXTRACTED HONEY, clover, fall flower or buckwheat 5 pounds \$2.10; 3—\$5.75; 6—\$10.50. Postpaid 4th zone, Paul C. Lang Apiaries, Box A, Gasport, New York.

GOVERNMENT SURPLUS

BOLT AND NUT assortment N.F. and N. C. thread Hexhead assorted sizes 1/4 to 3/4 to 6 inches long \$15.00 per 100 pounds. FOB, quality guaranteed (check with order. Rolling Equipment Co., 1125 Military Rd., Kenmore 17, New York.

SURPLUS JEEPS; trucks; tractors; farm machinery; boats, airplanes, helicopters, tents; tires; tools; guns; binoculars; Misc. Individuals can now buy Government surplus direct from the Government — complete details—send for new nationwide "U.S. Depot Directory & Procedures" \$1.25. Industrial, Box 770 (P), Hoboken, N. J.

BUILDING MATERIALS

GLUE LAMINATED RAFTERS AND ARCHES

Send for further information and prices. Box BR-93, Unadilla Silo Co., Unadilla, N. Y.

TIMBER

WANTED: STANDING hardwood timber, must fill order, top prices paid. Write: Arnold F. Moore, Salisbury Center New York. Phone 429-7875.

AUCTIONEERS

AUCTIONEERS — Livestock and farm auctions. Complete auction and pedigree service available. Harris Wilcox, Phone—Bergen 146, New York.

FOR TOPS IN Livestock Marketing—Regular weekly sales and farm auctions: Empire Livestock Marketing Cooperative.

WOMEN'S INTEREST

QUILT PIECES—6 pounds beautiful cottons \$2.00 postpaid. Bromberg, 1558 Minford Place, Bronx 60, New York.

BAKE NEW GREASELESS Doughnuts in kitchen. Sell stores. Free recipes. George, 3605 South 15th, Minneapolis 7, Minnesota.

SUITING FLANNELS Rich colors. Beauty blended — finest Rayon-Celanese Acetate. 45 wide. Washable Crease-resistant. Save. Samples 10¢. Kroona Fabrics, 2005-AF Taylor, Minneapolis 18, Minn.

DRESSES 24¢; SHOES 39¢ men's suits \$4.95; trousers \$1.20. Better used clothing. Free catalog. Transworld, 164-R Christopher, Brooklyn 12, N. Y.

YOUR CHURCH OR group can raise \$50.00 and more, easy and fast. Have 10 members each sell only twenty 50¢ packages my lovely cheery Christmas Carol Table Napkins. Keep \$50 for your treasury. N. money needed. Free samples. Anna Wade, Dept. 9HT1, Lynchburg, Va.

BEAUTIFUL NYLON stockings 3 pairs \$1. Sheermills 21831-X Cloverlawn, Oak Park, Michigan.

CHURCH GROUPS, Clubs—raise funds quickly! Many new money-makers. Free catalog. The Brisko Company, Shaftsbury 3, Vt.

CLUBS, CHURCHES — Raise \$50.00 among your members. \$100 to \$500 selling to friends and neighbors. Distribute leading Christmas Cards, 21 for \$1.00. Lowest prices, biggest profits. No risk or investment. Details free. Holiday Co., Dept. S20-1, Bedford, Va.

SALESMEN WANTED

MAKE BIG MONEY taking orders for Stark Dwarf Fruit Trees. Everybody can now grow Giant Size Apples, Peaches, Pears in their yards. Also Shade Trees Shrubs, Vines, Roses, etc. Outfit free. Stark Bros., Desk 30294 Louisiana, Missouri.

HERBS

LOOKING FOR HERBS, cut for tea use. We offer all kinds. Free price list. Write: Clarks Natural Herbs, Chaffee 3, N. Y.

SHELLED NUTS & SPICES

PECANS, ENGLISH Walnuts, Black Walnuts, Brazils, Almonds, Cashews, Sassafras, Pepper, Cinnamon, Sage \$1.25 Pound Dried Mushrooms \$3.00. Peerless, 538AA Centralpark, Chicago 60621.

BALER TWINE

BALER TWINE BOUGHT and sold Phil Gardiner—Rambler Dealer Write Mullica Hill, N.J. Phone GRidley 8-6291.

LIVESTOCK AUCTIONS

FOR TOPS IN Livestock Marketing—Regular weekly sales and farm auctions: Empire Livestock Marketing Cooperative.

PHOTOGRAPHIC SERVICE

YOU WILL BE PLEASED with films finished at Expert! Careful handling assures your satisfaction or money back. 12 exposures b&w. Jumbo Prints 70¢; 8. 50¢; Kodacolor 12 exp. developed, enlarged \$3.00; 8 \$2.00. Kodachrome processed 20 exp. \$1.40. Fast service. Free mailers. Quality since 1915. Expert Studios, Box 801T, LaCrosse Wis.

FLOWERS & BULBS

WILD FLOWERS, Free catalog. Write Flowers, Box 163, McMinnville, Tennessee 37111.

100 IRIS EACH DIFFERENT, every color, red, pink, copper, blacks, white, etc., every type including ruffled, laced, tailored, two-toned, feather stitcher etc., for \$10.00; 25 for \$3.00. Transportation collect. Free catalogue listing 1000 varieties at wholesale price. Smith-Iris Gardens, Lewiston, Idaho.

SITUATION WANTED

NEED HELP? We may legally assist you to sponsor excellent Agriculture laborers, including tractor drivers, cattlemen, irrigators, etc. Write for free information stating your requirements to: S. D. Corona (AA) Atty., — 200 Libertad Avenue, 7th Floor, Guadalajara, Jalisco, Mexico.

TRAVEL

HERE'S THE BEST travel value in America! If you don't believe it, ask anyone who has taken our 10,000 mile tour by scenic bus. We are now taking reservations for June, July or August, 1964. The Grand Circle Western tour includes Las Vegas, Boulder Dam, Hollywood, Mexico, San Francisco, British Columbia, Lake Louise and a thousand other interesting points. Book early to be sure and not be disappointed. Send for free literature describing this tour... nineteen days for only \$339. Shanly International Corporation, 528A Blue Cross Building, Buffalo 2, New York.

MISCELLANEOUS

STOP ITCHING Promotes healing of piles, psoriasis, eczema. "Roberts Reliable Salve" effective since 1888. Satisfaction guaranteed. 3 oz. \$1.00 postpaid Roberts Pharmacy, Lisbon Falls, Maine.

CESSPOOLS, SEPTIC tanks, outhouses, clogged drains cleared. Deodorized without digging and pumping. Sursolvent reduces contents, reclaims leachability. Old systems made to work like new. Free details. Electric Sewer Cleaning Co., 264 Lincoln Street, Allston 34, Mass.

PARTS FOR STOVES, furnaces, coal, oil, gas, electric. Empire Stove Co., 793 Broadway, Albany, New York.

PHOTOSTAMPS! 100 for \$2.00. Guarantee. Box 26, Jackson Heights 72, New York.

CHUNK WOOD BURNING Furnaces, Daniels Mfg. Company, Hardwick Vermont.

CIDER & WINE PRESSES. New & rebuilt. Repairs & supplies. Write for supply Catalogue #63. W. G. Runkles' Machinery Co., 185 Oakland Street, Trenton 18, New Jersey.

YOUR CHURCH or group can raise \$40.00 and more, easy and fast. Have 10 members each sell only ten of my lovely colorful Merry Christmas Table Covers, \$1 each. Keep \$40.00 for your treasury. No money needed. Write Anna Wade, Dept. 9HT2, Lynchburg, Va.

QUICK JOHN—Cleans septic tanks, cesspools, outdoor toilets. Stops odors, backups. Opens drains. 6 premeasured treatments \$2.50, 12—\$4.50. Money Back Guarantee. Ryter Co., Madelia 20, Minn.

CHAIR SEATING—Cane, Rush, Splint, Reed. Accessories. For complete price list, send 10¢ coin. The Workshop, Dept. AA, 122 Main St., Penn Yan, N. Y.

FREE TO CLUBS CHURCHES! Absentee Post Cards, guaranteed to increase meeting attendance. Supply sent free with information about big profit, no risk fund raising plan. No obligation so write today. Fund Raising, Dept. S20-4, Bedford, Va.

AFRAID OF LIGHTNING? Don't be—call us for free inspection. Survey and exact cost in complete lightning rod service. Morse-Collins, Inc., 148 Coddington Road, Ithaca, N. Y. Phone AR 2-8550.

MAKE YOUR OWN hand and body lotion. Simple ingredients. Complete instructions \$1.00 and stamped envelope. Soft skin guaranteed. Anne Smith, P.O. Box 1228-A, Plainfield, New Jersey 07061.

HAY & OATS

FIRST AND SECOND cutting alfalfa, mixed trefoil and other grades of choice hay delivered by truckload. Weights and quality guaranteed. Bates Russell, East Durham, N. Y. Phone Melrose, 4-2391 before 8 A.M. or after 5 P.M.

WE CAN DELIVER good quality new crop 1st cutting dairy hay. Now is the time to buy. D. Arnold Boyd, York, New York. Phone: Genesee 892.

TOP QUALITY dairy and horse hay always available Eldreds Farm Supply, Honesdale, Pa. Tel. Galilee 122R2 or 3.

CAN DELIVER 40 TON carloads of dehydrated alfalfa pellets consisting of 17% protein and 100,000 I.U.'s of Vitamin A per pound—guaranteed analysis—1/4" long at \$59.90 per ton. Also have pellets of 15% protein, 33% fiber, 1 1/2% fat with no guarantee on vitamin content at \$54.90. Prices at Boston rate basis through July delivery. Deduct \$1.50 Utica and \$8.00 Albany rate basis. 1: 50 pound bags add \$4.50 per ton. This is a real buy considering crop conditions and prices will advance each month. D. Arnold Boyd, York, New York. Phone: Genesee 892.

MOVING? So that you will not miss a single issue of the American Agriculturist, send your old address as well as your new one to American Agriculturist, 10 No. Cherry Street, Poughkeepsie, New York.



The Jersey in the center of this group is SPARK, granddaughter of Sybil, the cow that I sold to Nelson Brownell in 1947. She became the sole foundation of all Mr. Brownell's remarkable herd. Spark took second prize as a five-year-old at the NYABC show in 1961. See story on this page.

The Story of A Great Cow

ON AUGUST 18, 1947, when we were living on our farm at Dryden, New York, I sold to Mr. Nelson Brownell of Dryden a purebred Jersey cow by the name of Sybil. The other day, August 1st, 1963, almost exactly 16 years later, we called on Mr. Brownell, and found one of the most interesting cow stories that I have known in a long lifetime of working with cows and writing about them.

I found that Sybil had 64 registered female direct descendants, with three more to be registered this summer. Out of that astoundingly large number there was only one "dud", and breeding was not to blame for this one. She was hit in her hind quarters by a manure spreader when she was a heifer and had to be disposed of. With this exception, every cow in that long list was an excellent producer.

At present, Mr. Brownell has a herd of 22 milking cows and 47 head of young stock. With one exception, every head of stock on the place is a direct descendant of my Sybil. The 22 milking cows have an average production of 10,000 lbs. of milk per year, with a butterfat running from a low of 5.1% to a high of 5.6%. These are Jerseys, mind you, and average figures. In the herd, of course, are individuals with a much higher production.

In helping me get some pictures of individuals in his herd, Nelson tried to get one of the daughters of Sybil out of the stanchion and out of the stable. But in spite of everything he could do she wouldn't budge an inch; she just braced her feet and balked. Every dairyman knows what I'm talking about. Nelson finally gave up and said with some emphasis:

"That's just exactly like her mother! When Sybil didn't want to do anything — well, she just wouldn't!"

This Jersey herd tends to prove some facts that I have believed for many years, the first of which is

that it is not the size of the dairy herd that counts but the quality.

Over the years, Mr. Brownell has done all of the farm work and cared for the dairy himself with only part-time help from a boy. Because of my own experience when I was a boy, and in working for farmers by the day and by the month, I judge a man's character by the way he treats young people around him, particularly if they are in his employ. Nelson told me that he now has a boy on a full-time basis whose name is Robert Lawrence.

"Robert has worked for me for almost two years, and is planning to study electronics. To show you how responsible he is, I'll tell you that I haven't milked these high-producing cows of which I'm very choice but once in three months. Bob does it and he does it well!"

By doing most of the farm work himself, Nelson has been able to keep his expenses down, and with the aid of modern machinery he still has some time to work at his trade off the farm — cabinetmaking. He told me without hesitation that his herd had always been a money maker, and that he thought it was perfectly possible for Jerseys to compete successfully with other breeds, providing of course that the Jerseys are good enough. He thought his own herd had proved his point.

Almost as amazing as the dairy story is the fact that Nelson carried all his stock on 29 acres of his own land plus 50 more which he rented. He has corn silage available at all times, and grows a mixture of clover, alfalfa, and timothy at the rate of more than 4 tons per acre. This is proof of what can be done on a small acreage. Again, it is not the size that counts—it's the quality.

Last year, after feeding herd and young stock on all the quality hay they could eat, Nelson still sold about 500 bales of hay this spring.

I was saddened when he told me that he is forced to sell his beautiful herd this fall. He has reached the age where he is physically unable to work so hard; but the chief reason is that he is unable now to rent the land which has supplemented his own small farm for years. He hopes to sell the herd intact, thus keeping together all of Sybil's descendants. The dairyman who purchases this herd will have a fine business, ready made, that has taken Nelson years to build.

While in no way belittling or discounting Sybil's wonderful record, it should be said that her record would not have been possible but for the bulls available in artificial breeding associations. These bulls, of course, are the best in the world, and too costly for many individual dairymen to own. It is true, proven time and again, that the "bull is half the herd."

When it came time for us to leave, I asked Nelson if he would farm if he had a chance to live his life over again. He answered promptly, "Yes!"

"But didn't you tell me carpenters make more money?" I asked.

"Yes," he answered, "but there is more satisfaction right here. People stop to see my cows and dairy, and this kinda helps a man along."

"Do you think that there is any future in the business for a small farmer?"

"Yes," answered Nelson. "If a man manages right, gets a good herd and keeps good records, there's a nice living in the business — and a man doesn't have to be kicked around."

TO HELP MOTHERS

A young mother said to me recently that by the time she had gotten the children off to school and her husband on his way to work, she was completely exhausted, and her home looked as if a whirlwind had struck it.

Well, school days are here again, and with them is this problem of noise, confusion, and fatigue which ruins a day before it is started for so many mothers. With a family of live-wire children (and, incidentally, who wouldn't want them that way) there is bound to be some noise and confusion. I think the nervous strain could be reduced a lot by organizing a schedule and sticking to it. Here are a few suggestions:

1. Get up and get started so as not to be crowded for time. The few minutes of extra sleep are not worth the strain of trying to beat the clock later.

2. Get the children to bed early and at the same time every school night. After a few times, it will become a habit.

Too many of us, including children, lead a nervous, irritated life that not only results in strain but causes us never to get anywhere on time. Going to bed early and regularly makes it easier to get up on time in the morning.

3. Teach children from their earliest years to wait on themselves, dress themselves, pick up their own clothes, make up their own beds as soon as they are old enough, and put their rooms in order. Then, after taking care of themselves, children should be taught to share the work and responsibility of the household.

Not only will a good schedule help mother and children to get the day off to a good start, it will be of untold value to the children all through life.

In the last two years, I have acted as a consultant to several hundred college students, most of whom were freshmen. The majority were overwhelmed with so much reading and other college work, so much so that they were discouraged. Their chief difficulty was that they had never planned and organized a schedule in order to make the best use of their time, and they lacked such a schedule because they had never followed one in their own homes.

TO PREVENT FAILURE



All over America, thousands of young men and women are planning to go to college this fall, but it is a sad fact that out of every hundred students who enter approximately forty will not graduate. In most cases, the first few weeks tell the story.

In the Home Department in this issue of *American Agriculturist* (Page 36) I have made some suggestions that may help students to adjust themselves to college life and work so as to prevent the tragedy of "busting out."

If you have a son, daughter, or a young friend planning to go to college, you may want to call this article to their attention.

EASTMAN'S CHESTNUT

When one of my daughters-in-law, who is a Texas gal, reads this, I hope I will be out of town, for naturally, like other Texans, she is very enthusiastic about her home state.

A Texan died, and after reaching his eternal home, he exclaimed:

"Gosh! I never thought Heaven would be so much like Texas!"

The man at the gate seemed startled and surprised, and finally said:

"Listen, Mister, what makes you think this is Heaven?"



ED EASTMAN'S PAGE





SERVICE BUREAU

SEWED UP

"Last month we received a card advertising reconditioned sewing machines with special features and a 5 year guarantee. Being a well-known brand, we felt safe in answering. We had no intention of buying a new machine, had no idea of their prices or what features the machines might have, but felt we could afford a \$19.95 reconditioned one.

"The salesman called and showed us the machine, which was old-looking but ran well, and I was satisfied with it. However, next thing we knew the agent brought in a new (Japanese-made) machine, which he said was on sale, and told us we could not get a better machine with all of its features at the price, \$249.00. Of course this made the other machine look even older. Unfortunately, we had an insurance check in the house, otherwise, we would never have considered buying it, but we felt we probably never would if we didn't then.

"The next day I checked some catalogs and found I could purchase similar machines for \$100 less. I tried to reach the salesman by 'phone at the address he had given us, but there was no such listing. I stopped payment on the check we had given him, and the next week he called to ask why. I told him I felt he had misrepresented the machine, that I could not afford it, and that I wanted him to pick it up. He refused and said the company lawyers would tend to it. He reminded me that my husband had signed a paper, acknowledging the good condition of the machine and approving the terms of the financial contract. We haven't heard from the company yet."

Here again, we see the need to check before buying—not only on the reliability of the company, but also by making price comparisons. Do not let anyone rush you into buying his goods or services!

A YEAR LATER

"We received today the goods which we ordered more than a year ago. Thanks for all you've done. We'll take AMERICAN AGRICULTURIST as long as we live."

Getting orders shipped or refunds made on undelivered merchandise is one of the most successful ways we have of helping subscribers.

ALARMED!

"The hardest part of this letter is to admit I let someone take advantage of me. I wish someone had warned us; perhaps we can warn others.

"One evening a man stopped and wanted to show us a film on fire safety which was educational, warning of fire hazards and what to do in case of fire. There was some advertising in the film, but he said he was not a salesman. With this understanding we let him show the film, which naturally was a little emotional, being about fires.

"Then he became a salesman for a fire alarm system. We did not want one, could not afford one, and told him so, but he would not leave. Finally, we were so nearly asleep we must have lost our sense of reasoning, the salesman convinced us we could buy a system for \$50, and we signed the necessary papers.

"By noon the next day, the system was installed. The company turned the papers over to a financing company, which informs us we signed a judgment note for \$470, payable in 45 days or 36 easy installments (a total of \$635). If we do not pay, they have the note against our place to collect, plus 15%, plus costs. The company ignores all protests. The system and the company may be reliable, but if they are it does not seem they would resort to these tactics."

This company is listed under the label of the Underwriters' Laboratories, but we cannot approve the sales method used by their agent, who wore down our subscriber's resistance by first playing upon his

emotions and then tiring him out so that he finally signed just to get rid of the man. No one should be pressured into buying without being able to check on the company, and without having time to decide if the product or service is something he needs and can afford. Regarding fire alarm systems, your local fire chief can often give you advice.

Some companies or salesmen, particularly for fire alarm systems, siding, and the like, use the "referral" method of selling, of which we have never approved. The company promises to pay a specified amount for the names of any prospective customers who later purchase. Too often a person signs up for more than he can afford in the hope of getting a substantial portion returned. Companies, using this referral plan, are likely to charge higher prices and the purchaser usually ends up paying full price for an expensive system or job. Also, submitting the names of friends, in order to earn a commission, would seem to be an abuse of friendship.

ADDRESSES WANTED

Aletha Beers, formerly of Painted Post, N. Y.

Raymond Ogden, 31, son of Albert and Grace Ogden, formerly of Monticello, N. Y.

Mrs. Marjorie Bouck Phillips, whose last known address was Gardiner, Mass.

Robert Woods, whose last known address was Elmira, N. Y.

Joseph Ryan, whose parents lived in Towanda, Pa. and died in 1923. His mother was the former Cynthia Westbrook.

Leroy Haskell, last heard from in 1928 at 921 Vine St., Lansing, Mich. Also Doris Warren Gebhard, 3424 Elm St., Milwaukee, Wisc.

CAN YOU HELP?

If you know any of the following songs, won't you write Mrs. Leo Moores, R.F.D. 2, Box 90, Lubec, Maine:

The Brooklyn Theater Fire
Around Cape Horn and Home Again

Forever Nineteen
The Lightning Express.

Mrs. Leon Mattison, Deer River, N. Y. would like to locate an old crocheting book No. 205, "Old and New Favorites."

Mr. John N. Crowell, Star Hill Rd., Remsen, N. Y., would like old "Playing Cards."

SERVICE BUREAU CLAIMS RECENTLY SETTLED

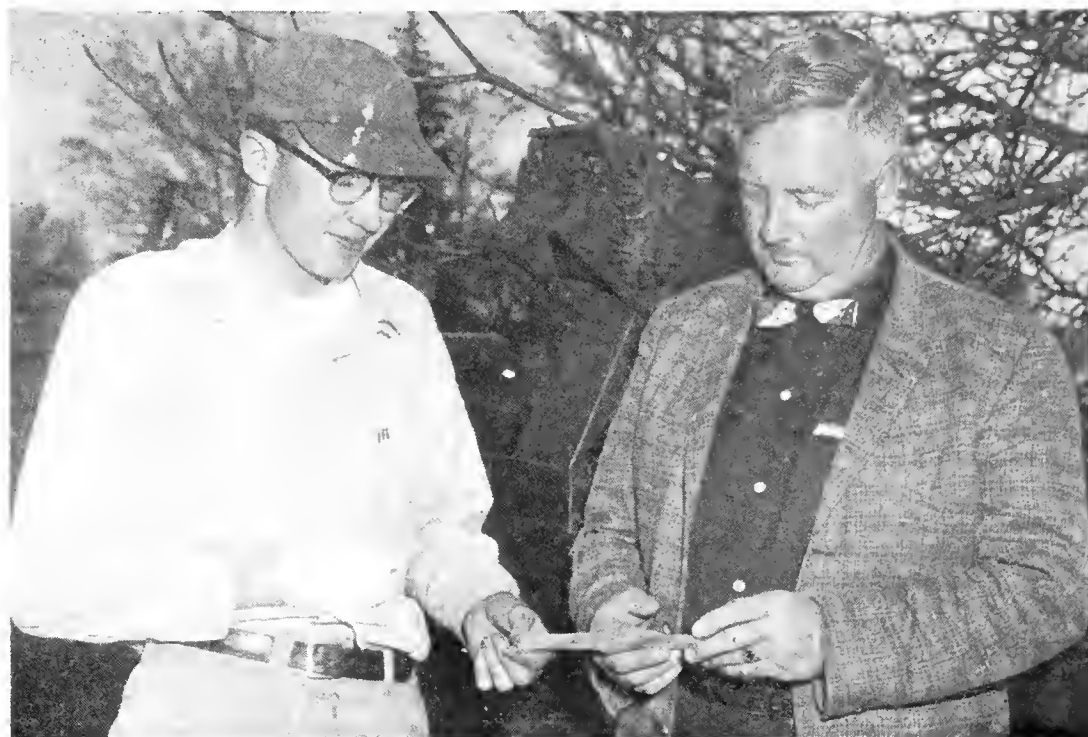
NEW YORK

Mrs. Leonard W. Borden, Franklinville ..	\$ 6.00
(refund on homework)	
Mr. Peter Van De Wert, Goshen	50.00
(payment on hay)	
Mr. William Cavallaro, Frewsburg	4.50
(refund on trees)	
Mr. C. C. Bailey, Cape Vincent	57.08
(insurance settlement)	
Mr. George Weber, Springville	110.34
(gas tax refund)	
Mr. Geo. H. Roddour, Breesport	2.50
(refund on order)	
Mr. Claude E. Davis, Ludlowville	2.50
(refund on order)	

PENNSYLVANIA

Mrs. Jennie M. Kline, Elizabethtown	390.00
(refund on franchise)	
Mr. Ed Kosa, Ulysses	100.00
(damage settlement)	

Fingers Caught In Corn Picker Rollers



Receiving \$1420.00 check from local agent Lock Norton, Winston Prudom of Middleport, N. Y. was thankful he carried two North American policies. The \$25.00 a year protection paid weekly income benefits and medical expense benefits. Be sure your protection is up-to-date before an accident strikes.

OTHER BENEFITS PAID

Blanche Coro, Albany, N. Y.	\$256.86	Dwight Porter, Norwood, N. Y.	1084.00
Auto accident—Injured back		Caught foot in silo unloader—severe injury to leg & foot	
Clark Luckey, Black Creek, N. Y.	525.97	Thomas Rusnica, Pattersonville, N. Y.	283.99
Slipped & fell—internal injuries		Pushed by cow—Injured back	
Marie K. Ralyea, Almond, N. Y.	270.28	Omer J. Snyder, Burnt Hills, N. Y.	170.00
Slipped & fell—Injured ankle		Auto accident—internal injuries	
Henry Katzenstein, Deposit, N. Y.	600.00	Joseph Risse, Middleburg, N. Y.	787.28
Pulled by cow—Injured foot, inflammation		Auto accident—Injured back, bruised head	
John Weaver, West Valley, N. Y.	718.26	Frank I. Bartholomew, Watkins Glen, N.Y.	111.43
Slipped & fell from tractor—Injured knee		Fell down stairs—head injury	
Anna Sosniak, Auburn, N. Y.	559.70	Nelson Colegrove, Troupsburg, N. Y.	301.00
Fell downstairs—Injured shoulder & arm		Fell down hay shoot—Injured ribs & shoulder, cuts	
David W. Chisholm, Cayuga, N. Y.	598.00	Russell Houghtaling, Lock Sheldrake, N.Y.	280.00
Helper fell on insured—Injured leg		Auto accident—Injured shoulder & arm	
Pollyanna Heilman, Kennedy, N. Y.	421.76	Charles Allen, Roscoe, N. Y.	117.14
Fell—Injured wrist		Fell—Injured head	
Glenn Scott, Frewsburg, N. Y.	425.00	Harry Lant, Berkshire, N. Y.	397.83
Hit in chest with wrench—severe chest injury		Hit by bull—leg injury	
Cecilia Kiser, Horseheads, N. Y.	569.08	Ray L. Dedrick, Dryden, N. Y.	625.59
Auto accident—Injured shoulder & ribs		Piece of iron fell on leg—severe leg injury	
Nelson Adams, Plymouth, N. Y.	521.33	John E. Heath, Granville, N. Y.	228.57
Struck by auto—whiplash, injured leg, cuts & bruises		Kicked by cow—Injured side & ribs	
Robert Lewis, West Chazy, N. Y.	103.57	Thomas C. Steele, Hudson Falls, N. Y.	157.86
Playing soccer—Injured leg		Kicked by cow—whiplash injury	
Floyd S. Mowry, Jr., Cortland, N. Y.	199.82	Leonard J. Nortier, Marion, N. Y.	597.13
Hit by jack—fractured jaw		Milk bottle broke—Injured hand	
Robert Stilwell, East Meredith, N. Y.	205.00	Charles J. Hack, Walworth, N. Y.	534.00
Thrown against handle—internal injuries		Kicked by cow—Injured knee	
Joseph P. Morgano, Brant, N. Y.	118.07	Norman P. Murphy, Johnsonburg, N. Y.	178.57
Fell playing ball—Injured leg		Pinned beneath hay rack—Injured ribs, shoulders	
Noah William Cook, Bombay, N. Y.	102.86	Ray Buckle, Penn Yan, N. Y.	253.57
Fell skating—Injured knee		Draw bar on mower fell—Injured leg	
John Subik, Jr., Johnstown, N. Y.	490.54	Edward Englerth, Stafford, N. Y.	274.70
Kicked by cow—Injured back		Crushed by bull—Injured shoulders & back	
Lloyd Didget, Stafford, N. Y.	332.35	Eugene Potter, Morley, N. Y.	191.24
Auto accident—Injured arm; cuts & bruises of face		Using skill saw—Injured fingers	
Charles Pierce, New Baltimore, N. Y.	459.64	Bessie Reed, Ithaca, N. Y.	275.14
Auto accident—Injured nose		Slipped & fell—broke leg	
Ernest Pardee, Newport, N. Y.	131.00	David L. Gale, Dickinson Center, N. Y.	110.00
Fell on plank—Injured ribs		Fell off fender of car—Injured shoulder, arm & scalp	
Loren Widrick, Lowville, N. Y.	950.20	Jerome Shabloski, Wellsboro, Pa.	256.43
Sliding into base—Injured leg		Crowded by cow—Injured leg	
Anna R. Cameron, Caledonia, N. Y.	449.43	Lyle R. Dunn, New Albany, Pa.	102.86
Fell—Injured knee		Slipped—Injured knee	
Mildred Mills, Chittenango, N. Y.	404.11	Earl Benson, Covington, Pa.	174.35
Fell—Injured back, severe bruises		Ladder tipped over with ins.—Injured back	
Hazel Hawkins, Honeoye Falls, N. Y.	1015.78	Fred Hopson, Union City, Pa.	267.14
Scratched by dog—severe leg injury		Fell downstairs—Injured ribs	
John Rockow, Hamlin, N. Y.	518.60	Merle Kibbey, Pittsfield, Pa.	100.00
Slipped—internal injuries		Hit on leg with small tree—Injured leg	
Earl Mathewson, Amsterdam, N. Y.	440.00	Morris Mead, Genesee, Pa.	709.40
Hit by motor cycle—Injured leg, concussion cuts		Slipped—internal injuries	
Walter Ohl, Sanborn, N. Y.	115.00	Vernie Crawn, Newton, N. J.	394.00
Fell over bale of hay—Injured back		Slipped off conveyor—Injured knee	
Theodore Charosia, Taherah, N. Y.	611.05	Kurt F. Kaufmann, Sussex, N. J.	137.10
Wrenched knee while getting off tractor		Auto accident—concussion, cut lip and knee	
Karl Diehl, Deansboro, N. Y.	762.56	George Hobe, Robbinsville, N. J.	132.14
Cleaning mower—Injured fingers		Auto accident—Injured knee & ribs	
Maxwell Cuptill, Nedrow, N. Y.	1000.00	Theresa Sangillo, Clarksburg, N. J.	235.60
Splinter struck eyeball—Injured eye		Tripped on stone & fell—Injured elbow	
Richard Button, Newark, N. Y.	698.80	Mildred Sholl, Bordentown, N. J.	646.00
Fell when scaffold gave way—Injured back		Fell moving supplies—internal injuries	
Everett Garrison, Middletown, N. Y.	396.67	Leo Panilaitis, Watertown, Conn.	234.28
Tire blew up—hit—Injured leg, hand & wrist		Truck accident	
Edward Smith, Holley, N. Y.	172.57	Samuel MacDonald, E. Northfield, Mass.	166.46
Floor gave way—cuts & bruises of face		Fell—Injured wrist	
Dorr Waid, Worcester, N. Y.	498.00	Aleck Kownseki, Deerfield, Mass.	990.87
Auto accident—whiplash, concussion, cuts & bruises		Fell from roof—Injured heel & elbow	

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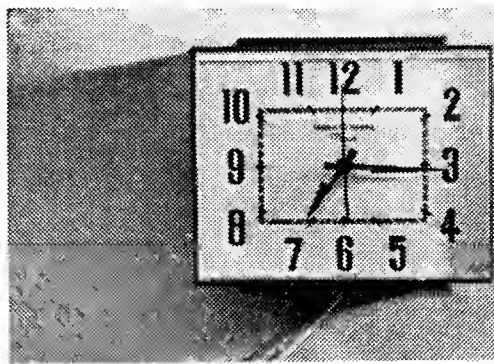
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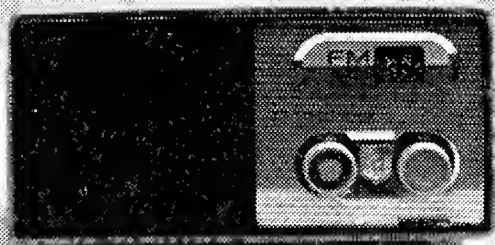
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FM STATIONS

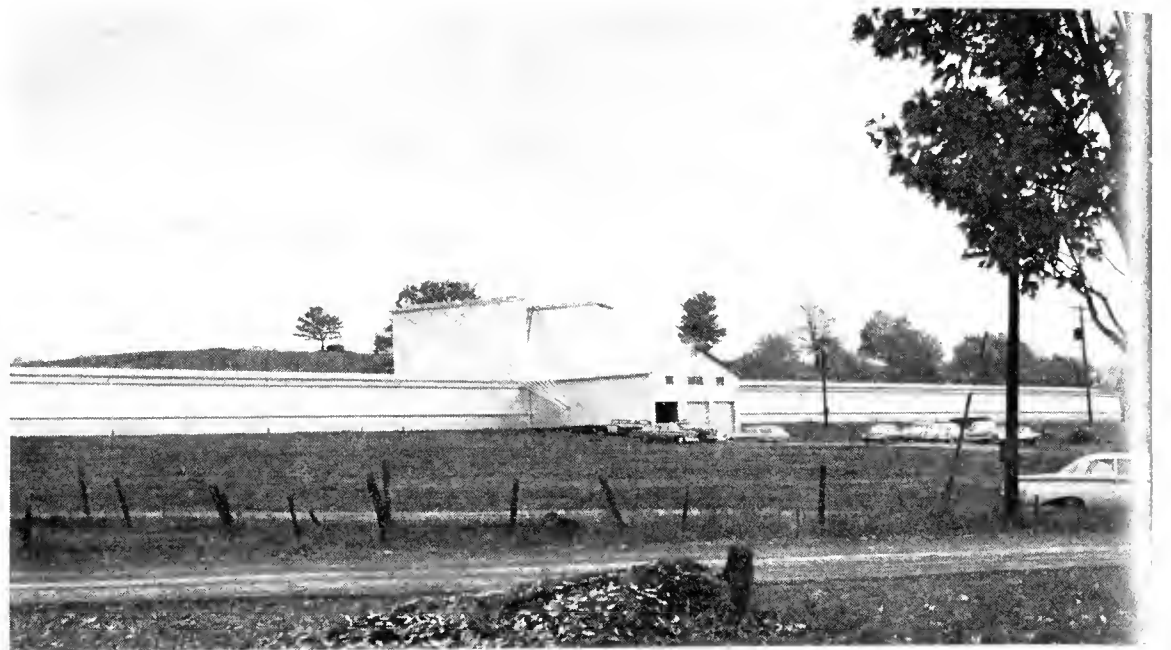
Auburn	WMBO-FM	96.1 mc.
Binghamton	WKOP-FM	99.1 mc.
Bristol Center-Rochester	WMIV-FM	95.1 mc.
Cherry Valley-Albany	WJIV-FM	101.9 mc.
DeRuyter-Syracuse	WOIV-FM	105.1 mc.
Hornell	WWHG-FM	105.3 mc.
Ithaca-Elmira	WEIV-FM	103.7 mc.
Jamestown	WJTN-FM	93.3 mc.
Niagara Falls-Buffalo	WHLD-FM	98.5 mc.
Olean	WHDL-FM	95.7 mc.
Wethersfield-Buffalo	WBIV-FM	107.7 mc.

AM STATIONS

Auburn	WMBO	1340 kc.	Olean	WHDL	1450 kc.
Binghamton	WKOP	1360 kc.	Remsen	WREM	1480 kc.
Boonville	WBRV	900 kc.	Rochester	WROC	1280 kc.
Dunkirk	WDOE	1410 kc.	Salamanca	WGGO	1590 kc.
Elmira	WENY	1230 kc.	Saratoga		
Glens Falls	WSET	1410 kc.	Springs	WSPN	900 kc.
Gloversville	WENT	1340 kc.	Sayre, Pa.	WATS	960 kc.
Hornell	WWHG	1320 kc.	Schenectady	WGY	810 kc.
Ithaca	WTOK	1470 kc.	Syracuse	WHEN	620 kc.
Jamestown	WJTN	1240 kc.	Syracuse	WOLF	1490 kc.
Niagara Falls	WHLD	1270 kc.	Utica	WBVM	1550 kc.
			Walton	WDLA	1270 kc.

Northeast Radio Network

Ithaca, New York



Hiram Frank's two-story, 42 x 1000 foot windowless caged layer building which houses 100,000 Leghorns. In addition, Hiram has 250,000 layers on six neighboring farms.

A New Type Poultry House

ACCORDING to poultryman Hiram Frank and his engineering firm of Farm Consultants, Inc., a poorly-planned caged layer house can be as outmoded and financially unstable as grandma's chicken coop. On the other hand, a properly-designed and constructed caged layer house can be a big asset.

Pooling the experience of constructing all types of caged layer houses throughout the East, the largest windowless poultry building in the world, a spic-and-span aluminum-sheathed 42 x 1000 foot building, with nearly 100 percent 5/16" plywood interior, has just been completed on Frank's home farm. This building in North Branch, Sullivan County, New York, located high on a windy mountaintop, is one of the latest examples of a new trend in specifically-designed, completely automatic caged layer egg factories.

Used Plywood

Many large poultry houses in the area are huge multi-floored structures constructed mainly of concrete blocks. Why did Frank turn to other materials, basically 4 x 8 sheets of plywood?

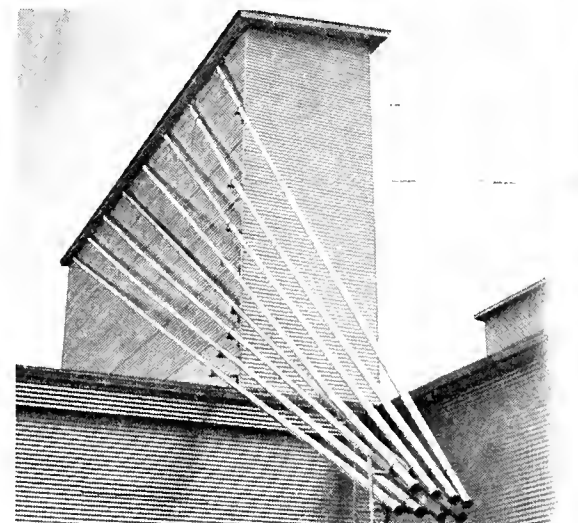
"For one thing," says Frank, "it's difficult to insulate block construction properly. Plywood is one of our most flexible building materials. It is fast and easy to apply, and economical. Houses can be designed to utilize the 4 x 8 sheets to advantage without waste. As an important part of the structure, it provides both lateral and horizontal strength."

Frank uses waterproofed exterior grade plywood for all interiors. The reason is that weather conditions can upset even the best builder's plans, and a building may be unfinished and open to wet weather for long periods of time.

Building Tips

Why two floors in the new 1000 foot caged layer house? "If we didn't have two floors," Hiram answers, "we wouldn't get all the lower-cost constructions benefits. For example, bulk bins supply feed by gravity-flow to both floors, and only one line is required for water."

The roof is sheathed with 5/8" ply-



A closeup of one of the twin 100 ton bulk feed bins. Two bins gravity feed to each of the 32 automatic feeders to provide choice of feed.

wood covered with built-up roofing. Insulation—which is very important—consists of four inches of Fiberglas in a self-contained unit with a vapor barrier in the ceiling. The same type of material, but of 2 1/2" thickness, was used in the walls. The ceiling is sheathed with a new kraft paper aluminized on both sides, with a built-in vapor barrier. Plywood sheathes the interior walls.

Exterior grade 5/8" plywood was used on the second floor for flooring. Without additional waterproofing or treatment this material also serves as dropping pits. A litter conveyor automatically removes droppings twice daily.

Plywood was also used in the construction of the two 100 ton bulk feed bins that service the 16 rows of caged layers. Each caged layer unit is completely automated, with two automatic feeders, water fountains, dropping removal, and automatic egg pickup.

To facilitate erecting future buildings of this type, Frank had construction photos made of the various stages of construction, showing specific detailed pointers. As an example, one series shows a closeup of the bulk feed bin framework and the sheathing on each floor.

C. L. Stratton.

LEUKOSIS

Leukosis ranks as the No. 1 disease of poultry, according to Dr. K. F. Hilbert, Director of the Regional Avian Disease Laboratory at Farmingdale, New York; next come cannibalism, peritonitis and tumors.

Dr. Hilbert says that it is hoped that the recent developments of "new tools" with which to work will speed up research and perhaps bring closer the dream of eventual control of leukosis.



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Dig in! 200,000 pounds in one day is a man-sized job. But it's not a back-breaking task if you're powered-up for it with a smooth-working John Deere Loader and Spreader team.

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See this powerful manure-handling equipment at your John Deere dealer's. Ask how his Credit Plan saves time.

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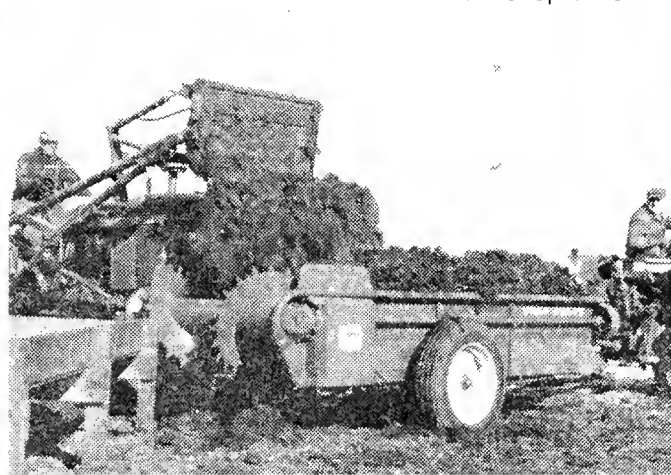
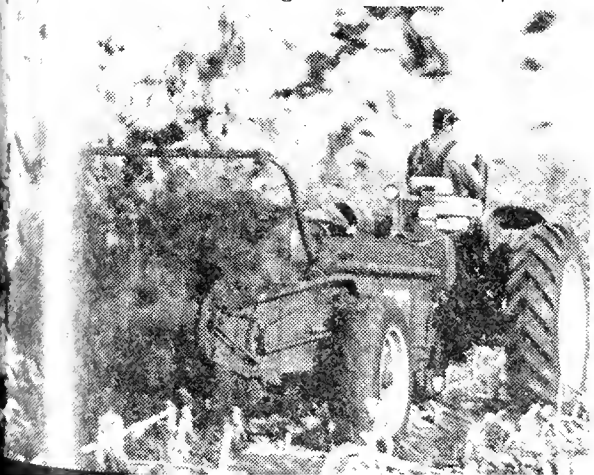
Choose from the Long Green Line of John Deere Manure Equipment

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The 45 Loader and 139-bushel PTO 33 Spreader

The 36 Loader and single-beater PTO 44 Spreader

The fast-unloading PTO 134-bushel N Spreader





99 out of 100 owners would recommend the
OLIVER 1600
to their neighbors

That's the big tractor news from a survey among the thousands of farmers who bought the new 1600 in time for spring work (names on request).

These owners have already discovered that this new Oliver in the 60 H.P. class has true big-tractor performance. It drives like an automobile, even in tough 4-bottom plowing . . . and with 16-inch bottoms.

The quiet-running 6-cylinder engine—gasoline, diesel, or LP gas, pulls smoothly from full throttle down to less than half speed. And backing up the engine are 12 forward speeds with optional Hydra-Power drive. There's the right speed for each job, plus on-the-go shifting into underdrive for up to 36 per cent more tough-spot pull. (Potential drawbar pull

in low gear goes up to 8400 pounds, according to results of a nationally-recognized tractor test.)

In the 1600, hydraulics are big, powered by a 16-gallons-per-minute pump that gives a fast lift to heaviest implements. And the draft-sensitive three-point hitch has a double feed-back system to prevent "wavy" implement depth.

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Try the new 1600 this fall. See the dramatic difference between this and ordinary tractors of the 4-5 plow class. Oliver Corporation, Chicago 6, Ill.



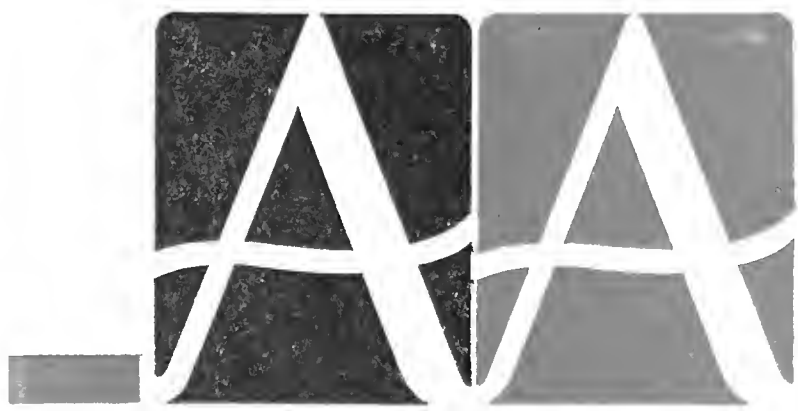
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Newest time and money saver from Oliver leader in plow design, is the Cushion-Action trip. It spring-cushions bottoms against normal jolts; also provides share-saving trip action for big obstructions. Tripped bottoms move back and up without point dig-in or breakage. Available on new Oliver 361 and 362 mounted plows.

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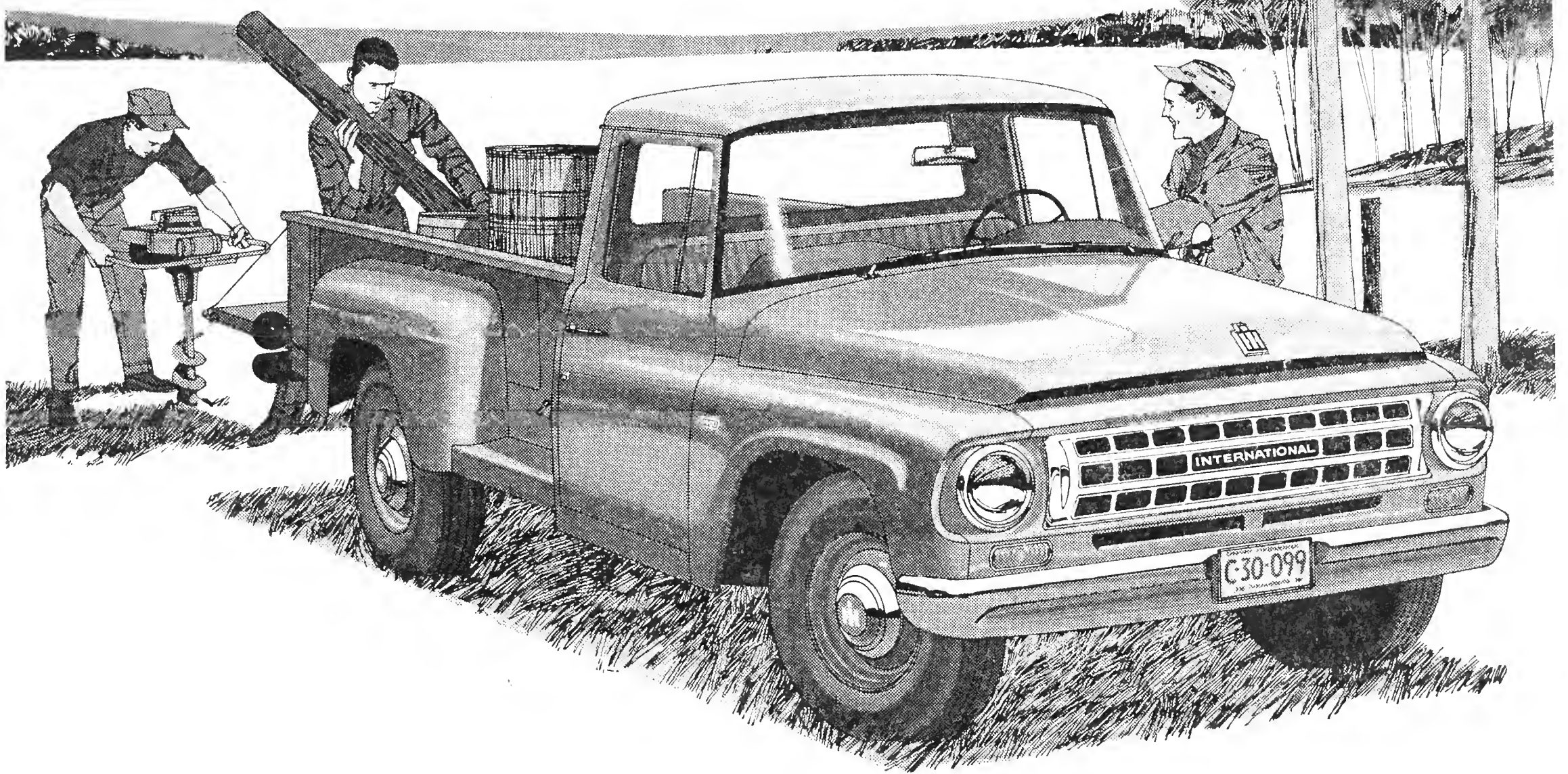
OCTOBER 1963

American Agriculturist



A CONSTRUCTIVE FORCE IN NORTHEASTERN AGRICULTURE

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American Agriculturist

A CONSTRUCTIVE FORCE IN NORTHEASTERN AGRICULTURE

Founded 1842 Volume 160 No. 10

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OUR COVER PICTURE

Another fun-filled summer has gone, school is in session again, but still at weekends boys find time to wander away and savor the Fall joys, such as sifting lazily through the leaves at the foot of the big maple in "October's bright blue weather." Come dinner time they'll have worked up appetites that will keep Mom hard put to fill them.



From any angle the fantastic formations you'll see in the Carlsbad Caverns of New Mexico are awe inspiring. These caves of unknown total extent were formed by water erosion of limestone. Of the known chambers, on three main levels, most impressive is Big Room (1,000 ft. long, 625 ft. wide and 285 ft. high). Temperature the year around in the Caverns is 56 degrees.

AMERICAN AGRICULTURIST

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EDITORIALS

BY GORDON CONKLIN



LETTER TO A "BELOW AVERAGE"

YOUR MOTHER tells me that you are crushed because your high school marks aren't good enough to meet college entrance requirements. She comments, "Everyone tells him that without a college education he might as well resign himself to a pretty dismal future."

It is certainly true that formal education is vastly important in this world, but a sheepskin isn't the only ticket to the Garden of Abundance. Maybe your mental machinery doesn't have the horsepower possessed by some, or maybe you didn't work it as hard as you should have in school—but that's no reason to mope around now and admit you're licked.

The purpose of life is not to pile up college degrees, valuable as they may be, nor is it to attain wealth or status, tempting though they are. There are characteristics that are common denominators of successful people; a high level of formal education is a **result** of these characteristics rather than a cause. If we measure success in terms of constructive and satisfying living, then anyone—regardless of educational level—can hope to develop these characteristics within himself and thereby increase the abundance of his days.

Thirst for knowledge is one of those common denominators—an insatiable desire to know more, to understand the principles behind the way things work. Education is a life-long process, one that requires constant effort and considerable self-discipline. But it isn't so much where one is at the moment in this process that counts, as at is in what direction he is heading.

Joy of accomplishment is another mark of successful living. Maybe you remember the mountain climber who was asked why he wanted to climb Mount Everest. He replied, "Because it is there." Of all the monsters that spoil life, there is no greater one than that named "Egocentricity"—being all wrapped up in ourselves. If you and I can become deeply committed to people and purposes beyond ourselves, old "Ego" will have to haul his freight elsewhere.

Sincerity is something becoming all too scarce these days. It includes honesty, dependability, and a lot of other attributes. It means that the face you present to others is the same one as would be found underneath. It means "ringing true," like the old plowshare and buzz saw blade you used to hammer to scare crows off the corn years ago—remember?

Goodwill toward our neighbors is a must, or the channels of our living will become plugged with the boulders of cynicism. This doesn't mean you need to agree with everyone, but that you make an active attempt to understand people, to encourage their strong points, and to forgive their weaknesses. Each day brings a new challenge to define the word "love" realistically and in a way that builds human character—and a new challenge to apply yesterday's insight on the matter.

Faith in a constructive power beyond yourself is the common denominator of all the

great religions of the world. Without this, you will suddenly become aware of your infinite smallness in relation to the universe, and the awareness will bring despair. Religion at its best can be the strongest single moving force toward constructive and satisfying living — the wellspring of joy within the human heart.

If you can push back the dimensions of your mind and spirit in these directions, you can drink deeply of the cup of life. Formal education provides a fine launching pad for the rocket of a person's existence, but the rocket is fueled by the things I mentioned. Did it ever occur to you that when men reach the moon they will face the difficult task of blasting off on the return trip without benefit of the complex launching mechanism they had on earth? You, too, face the difficult job of trying to move toward your orbit without benefit of complex launching equipment — but it can be done.

Never accept some limitation as a crutch upon which to lean, as an excuse for lying down in the traces. The most stirring chapters in the saga of humanity have been written by those who overcame their handicaps, their ill-fortune, and themselves.

THE BIG DITCH

FOR SOME TIME there have been proposals made to turn New York's Barge Canal over to the Federal government. I would like to go on record in opposition to this move because I am convinced that the day will come when the Barge Canal will be primarily a big irrigation ditch. Particularly in Western New York, it goes through some of the finest and most productive land that lies outdoors. There is a considerable amount of irrigation already being done from the Canal and there are possibilities for even greater use in the future.

It seems to me that farmers of New York State would be better off to keep control of the Canal as close to home as possible. They can exert much more influence at Albany than they can at Washington and, with the irrigation possibilities of the next twenty years, it would seem that it's worthwhile to work hard for continuing State control.

SOURCE OF POWER

MEMBERS of the Teamsters Union working at Seabrook Farms in New Jersey recently got an increase in wages—after a bargaining session attended by no less than Jimmy Hoffa himself! Farmers, though, were forced to take cuts in prices.

Organized labor leaders for years have said to farmers, "Look, there are only two ways to get everyone to pull together—or at least to stay in line. One is to work on politicians and get laws that do the job; the other is to knock heads together. You can talk about freedom all you want to, but we've learned the hard way what works and what doesn't."

Labor unions have successfully followed both routes. Laws grant them monopoly powers denied to farm cooperatives. The Eastern States Farmers' Exchange and Wirthmore Feeds, in the process of exploring merger possibilities, recently learned the exact details

of this fact. I suppose union bargaining power is part of the reason why a recent plumbing bill for work done at the Conklin hacienda included labor charges at \$7.12 an hour, and why the electrical workers in New York City have a pay scale based on a 25-hour week.

Knocking workers' heads together isn't so common any more, but the headlines tell of just enough blood-letting to remind the rank and file that it is healthier not to buck the brass.

Imagine for a moment how it would be if Northeastern dairy farmers were organized so they had bargaining power comparable to that of a union. Every dairyman is now a member of the Lactation Technicians and Feed Carriers Union of America; because 51 percent of the dairymen voted in favor of this organization, **everyone** must now be a member of the "closed shop" in order to ship milk. Every 100 pounds of milk pays 25 cents in "check off" dues, collected by handlers and then turned over to the union.

The handlers are forced to contribute to what is officially labeled a Non-Delivery Compensation Account (popularly called the "No-Sweat Fund"), used to pay for milk dumped during any strike against handlers. This arrangement, of course, is required by law and is administered by government, just as is the existing system whereby employers must foot the bill for unemployment insurance paid to striking employees.

A strike, by the way, completely dries up the flow of milk to consumers. A few producers try to deliver, but their trucks develop very serious engine trouble because of some sugar that has found its way into their gasoline tanks. The Brotherhood of Vegetable Experts and Tree Fitters join in a sympathy strike and also stop the flow of all fruits and vegetables.

Politicians make profound speeches, moral judgments thunder from pulpit and lectern, Congress launches an investigation — but the price of milk goes up anyway and the strike is over. Labor union leaders from across the nation call a meeting to discuss the topic "How Can We Curb the Monopoly Power of Organized Farmers?"

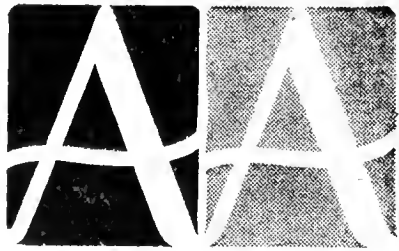
Is this what we want? Are we willing to pay the price? Or should we continue to proceed along the path of voluntary cooperation, knowing that we cannot entirely match the power that has been gained by organized labor through a combination of political power and the threat of violence? What's your opinion?

NOTHING NEW

MRS. CECIL SMITH of Madison, Maine, recently sent a letter quoting some "Hints to Farmers" drawn from material published in 1880. Here's what it said about preserving milk:

"Pour milk into a bottle and place vessel up to its neck in a saucepanful of water, which is then to be put on a fire, and allowed to boil for a quarter of an hour. The bottle is now to be removed from the water and carefully closed with a good tight-fitting cock so as to render it as air-tight as possible. Milk has been preserved by this process for more than a year without turning sour."

This sounds as though it was the forerunner of what we now call sterilized milk—that bugaboo recently developed in the Midwest that northeastern farmers have been worrying about taking over a hunk of the fluid market. It is always amazing to look through some back issues of *American Agriculturist* (we have them going back to 1842) and discover some ideas that sound as up-to-date as the day after tomorrow.



FARM DOLLAR GUIDE

DIELDRIN HAS BEEN REMOVED FROM Cornell Recommendations for control of alfalfa weevil in New York State. Hep-tachlor is the only material now recommended for fall application. Recommended materials for spring treatment remain the same.

U. S. DAIRY COW NUMBERS AT MIDYEAR were 16.6 million, down 2.8% from the 17.1 million last July 1. Government purchases of price supported dairy products were down about 25% for first seven months compared to last year. Since 1958, Northeast dairymen have cut cow numbers by 5%; U. S. cut 11%.

FOR MARKETING YEAR BEGINNING JANUARY 1, USDA is continuing incentive price of 62 cents per lb. for shorn wool, same as incentive since '55. Cost is met from import duties on wool and woolen fabrics.

WE HEAR THAT WHITING MILK COMPANY, second-largest milk handler in Vermont, has borrowed \$4,000,000 from the Teamsters Union pension fund!

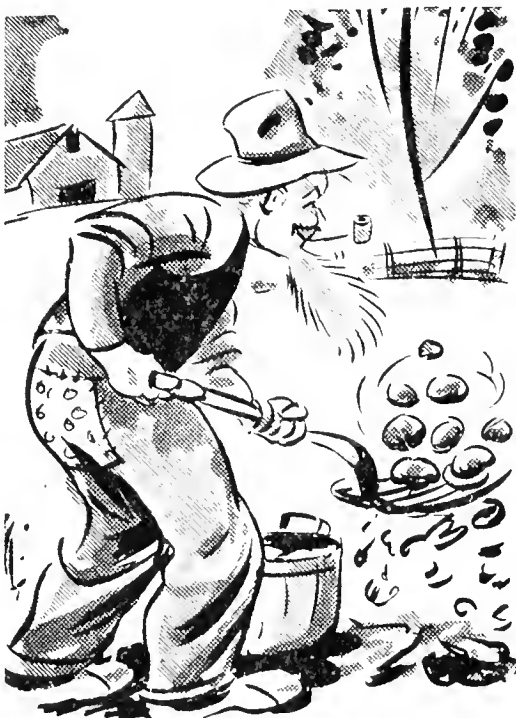
POULTRY SURVEY COMMITTEE OF THE AMERICAN FEED MANUFACTURERS ASSOCIATION ESTIMATES that fall TURKEY prices will be up 1 cent from last year . . . that BROILER prices may average about 14.5 cents during first half of 1964 if supplies are not up more than 3 to 5 percent . . . that EGG prices for year beginning in October will be 1 to 2 cents below last year.

USDA PLANNERS SEEM TO BE GIVING MORE ATTENTION to world food demand. Government will plan to manage crop production with supports used to meet foreign competition. Shakeup in USDA is forecast.

DESPITE GOVERNMENT EFFORTS TO CONTROL PRODUCTION, total U. S. farm production in 1963 is forecast at 108% of the '57-'59 acreage, equalling the record.

NATIONAL POTATO MARKETING ORDER IS OUT for present. Maine growers are divided about support of State potato order. Maine Potato Marketing Committee reported vote of 613 for and 361 opposed, but growers opposed, led by John Findlen, Fort Fairfield, challenge its accuracy.

The Song of the Lazy Farmer



MIRANDY don't know what to say 'cause I've been out here half the day a-digging spuds to beat the band, she claims she cannot understand why of my own free will I'd work when most the time I try to shirk. She watched me dig and stoop and pick and then decided I was sick; now that ain't being fair at all, she knows that ev'ry single fall I'm always fitten to be tied 'til I get new potatoes, fried. A job like this no one could mind who's ever sat him down and dined upon spuds fresh out of the ground, they are the best food I have found.

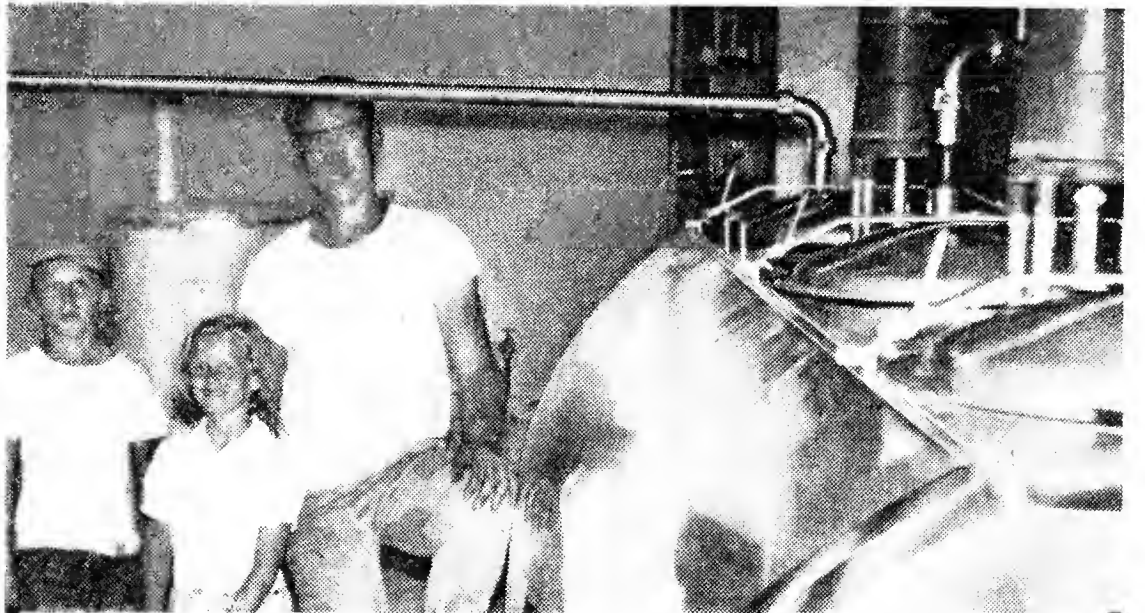
Besides, if I weren't out here now, I'd probably have to ride a plow or listen to Mirandy's digs 'bout how she has to feed the pigs. Without a doubt, she'd think up gobs of even more obnoxious jobs unless I beat her to the gun and figured out an easy one. By work-

ing without being told, I don't give her a chance to scold, it fills her with tremendous awe and she has no excuse to jaw; and so the hired man and she will get the plowing done, by gee, while I lean on my spade and smoke, and chuckle at my little joke.

WINNER

OUTSTANDING YOUNG FARMER AWARD

Says:



Carlos Page and two of his three children with Mojonnier 800 Gallon Bulk Cooler at his Leroy, N. Y. farm.

"I picked a winner in my Mojonnier Bulk Cooler!"

Carlos Page, 33 year old dairy farmer of Leroy, N.Y. was singled out to receive the 1963 New York State Junior Chamber of Commerce Outstanding Young Farmer Award. Education and hard work is his success story. A farm operator for 12 years, he started in 1949 as a farm hand, then pursued a home study course of agriculture from Cornell University. He presently owns and operates a 420 acre farm, handling 85 Holsteins with his milking parlor, pipeline milker and Mojonnier Bulk Cooler.

"The biggest problem facing dairymen", says Page, "is keeping costs down and quality up. My Mojonnier Bulk Cooler sure does both. Gives me a sealed vacuum system from cow to pickup that guards the freshness and flavor of my milk all the way. The smaller electric bills showed me this Cooler's plenty thrifty, too. Another thing, the way Spray-O-Matic cleans my unit automatically is something to see. Does it in less time and far better than hand brushing ever could. I bought Mojonnier because I wanted the benefit of their years of experience in building quality milk handling equipment for dairies and the farm. Glad I did, because I really picked a winner!"

Get your copy of the new booklet, "Sealed System for Handling Milk on the Farm." Write for it today to

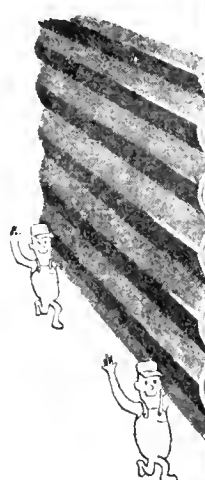
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4601 W. Ohio St., Chicago, Illinois 60644



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QUALITY ENGINEERED FOR ECONOMY

100% STAINLESS STEEL
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Forestry Conference

this region jingle to the tune of nearly three-quarters of a billion dollars worth of income from this source each year, and the Northeast has 52,400 chain saws busily making the harvest!

Recently, an all-day conference was held at Albany to discuss forest land use in New York State. More than 300 people listened to a series of speakers, including a keynote address by the Honorable R. Watson Pomeroy, chairman of the Joint

Legislative Committee on Natural Resources.

Basically, everyone was concerned about using the forest lands of the Empire State in the best interests of all. Sharp differences of opinion seemed to exist only in terms of the so-called "wilderness areas" in the State Forest Preserve. Some people are passionately committed to retaining them "forever wild"; others say that what this really means is "forever rotting." Lumbermen are particularly irritated that millions of board feet of timber are never harvested in these wilderness areas. Many a taxpayer also claims that these remote acreages don't really serve the people, because only a very few ever venture into them

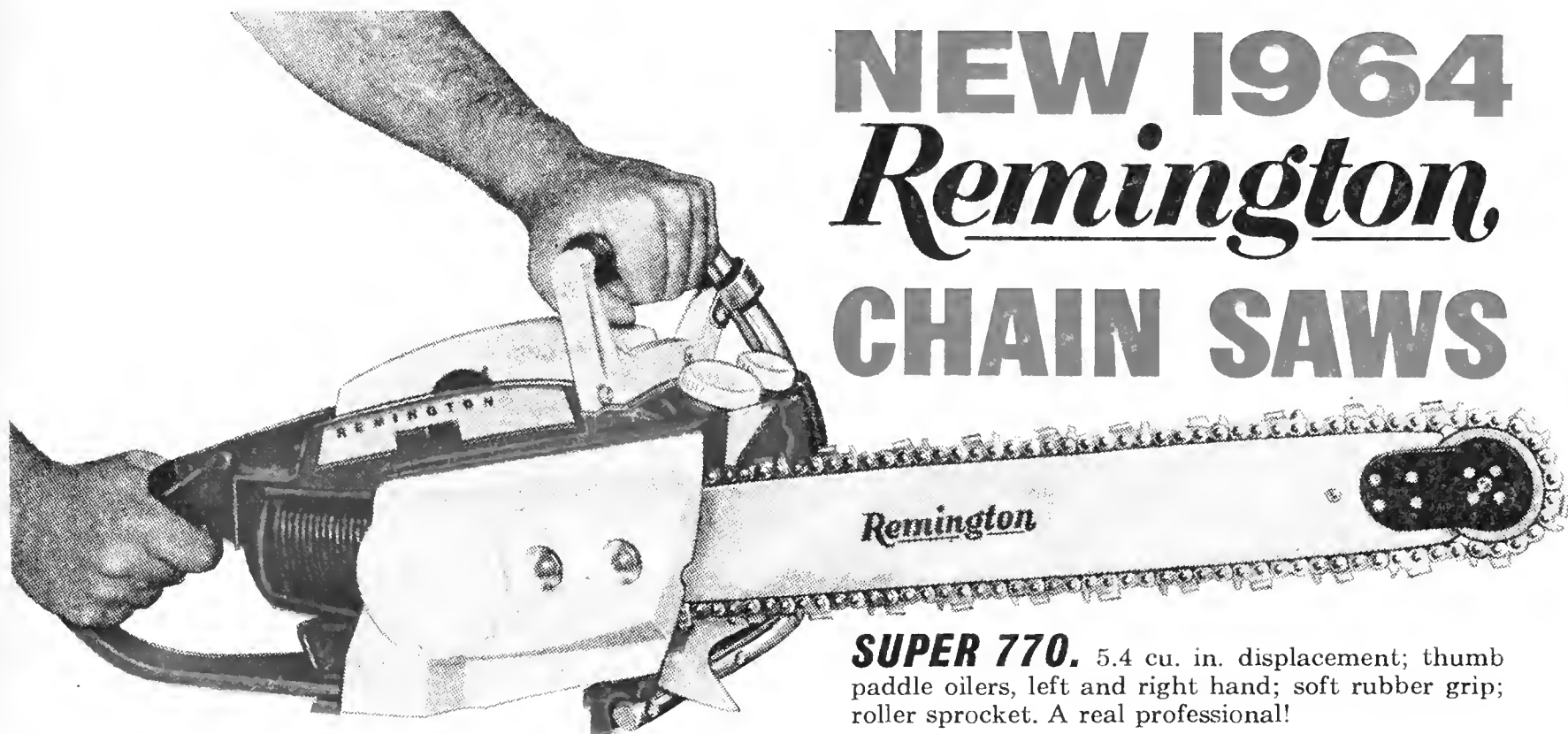
to enjoy their primitive beauty. The question is often raised, "Is there really something beneficial about them just because they are there, unused and unseen?"

Professor Howard Conklin of Cornell University described what he called the emerging "suburban forest"—many small tracts of wooded land owned by a host of people from business, industry, and the professions. These people enjoy the privileges of land ownership, but only incidentally hope to make enough money from the land to meet some expenses of ownership. He predicted that by the year 2000, one-half of the forest areas of the state will be part of this "suburban forest."

Note of Caution

Robert McClellan, a farmer near Geneseo, N. Y., described his experience managing his own woodlot, and cautioned farmers to be realistic about going into the recreation business. He said, "Most farmers are not temperamentally attuned to dealing with the public in its uninhibited approach to self-indulged pleasure."

"Multiple use" is a term often heard in connection with forest lands. It briefly means using tree covered areas for timber, water management, recreation, and wild life. The forest areas of the Northeast are of enormous importance to the citizens of the region—pleasing to the eye as well as the pocketbook. Every person has a stake in working toward realistic and constructive solutions to forest land use problems.—G.L.C.

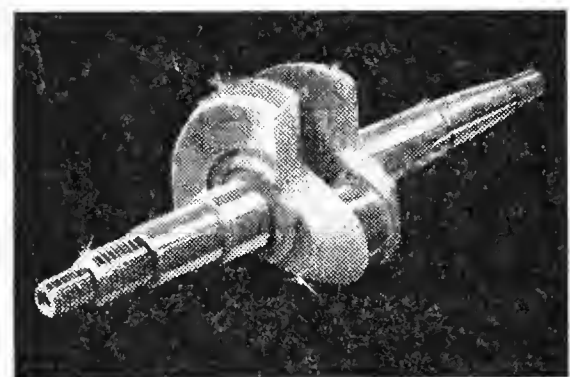


SUPER 770. 5.4 cu. in. displacement; thumb paddle oilers, left and right hand; soft rubber grip; roller sprocket. A real professional!

- **Longest-lasting crankshaft ever made!**
- **Bearings (not bushings) where bearings should be!**
- **Power-boosting roller nose (at no extra cost)!**

You owe it to yourself—and your pocketbook—this year to look at Remington's new 1964 chain saws. Tough, powerful, and trouble-free, they can save you time and money in the long run. Here's why—

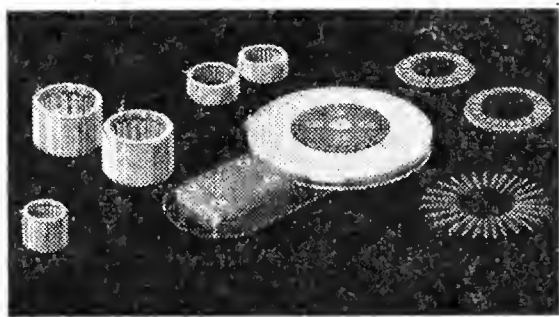
No chain saw is any tougher than its crankshaft. This is where the stress and strain of heavy cutting is felt the most. To eliminate the inconvenience and lost time due to breakage, Remington uses a free-



floating crankshaft supported by roller bearings. The result is the toughest, longest-lasting crankshaft in any chain saw, so tough, in fact, that if it fails because of defective materials or workmanship *any time during the life of the saw*, Remington will replace it at *no cost!*

To make the saws even tougher and to give them hundreds of extra hours of running life, all Remington saws are equipped with friction-free pistons and a chrome-plated cylinder, which greatly reduces wear.

Bearings are another important item to examine. Are bearings, or less-expensive bushings, used at crucial friction points? No matter what position a Remington saw is used in



—upright, on its side, or upside down—the moving parts revolve smoothly on bearings—not on a plain bushing or the housing!

There are roller thrust bearings, for example, on the crankshaft to keep it free of friction while operating on its side. Many ordinary chain saws use only bushings! Remington also has roller wrist pin bearings on every model.

In Remington's patented roller-nose guide bar alone, there are 34 big roller bearings. This not only boosts cutting power up to 20%, but also reduces friction to increase the life of the sprocket and guide bar. The roller nose, of course, is stand-



Cutaway view of roller nose.

ard Remington equipment at no extra cost.

Remember, almost any chain saw, when new, will do a creditable job of cutting in a test lot. The differences don't show up until later. To get the whole story of Remington quality, just see your Remington dealer or write to address below. You'll be glad you did!

Remington



OUTCUTS, OUTLASTS 'EM ALL!

As low as **\$154⁹⁵***

with 12-inch roller nose bar

[**Roller nose is standard equipment at no extra cost. Also 3-piece Tool Kit included free!**]

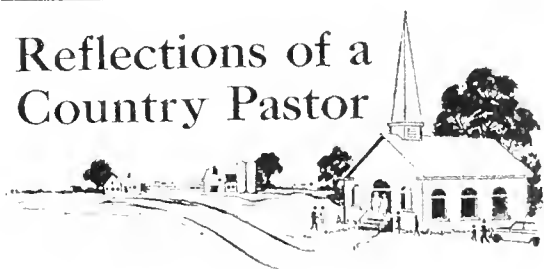
Occasional users—See Remington's Bantam Special with solid bar

for only **\$149⁹⁵***

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*Manufacturers' suggested retail price.

Reflections of a Country Pastor



"My Soul Is Washed"

LISTENING to a preacher describe the functions of the Church, the above theme flashed into my mind. It was suggested when he compared the uses of the Church with an air base. After a certain number of hours of operation the plane is returned to the base for renewal of worn parts and cleaning of still useable ones. Lines from one of William Stidger's poems came to mind:

I watched God wash the world last night,
And wished He had washed me!

This also called up memories of an old story of a maid in a well-to-do home who attended Church, and after service told the pastor how much she had been helped.

"What was it I said that helped?" asked the good man.

"Well," replied the honest servant, "I don't remember any particular word or sentence. But, you know, I wash out the dishcloths with hot suds and hot rinse water and hang them out to dry. They are fresh and clean, but not a flake of soap or a drop of water remain in them. The service does that to my soul, Sir."

One significant benefit of worship is the cleansing, renewing, refreshing result in the inmost spirit—we call it the "soul." The Church can heal hurt hearts, renovate soiled souls, repair racked spirits, so that they may become airborne—really "heaven-borne" again!

—Arthur Moody

GLF REPORT TO DAIRY PATRONS



GLF's Profit Feeding Plan... how it helped Lester Stull raise his herd average 3000 lbs.



GLF's Profit Feeding Plan... the results after three years.



Higher Grain Feeding proves 7 of every 10 cows can produce more milk — profitably.

One PFP herd average on the way up

1960 9,900 lbs. herd average
1961 11,000 lbs. herd average
1962 12,700 lbs. herd average
1963 13,100 lbs. herd average

These are the DHIA figures for the 38 cow herd of the Lester Stull dairy farm at Salamanca, N.Y.

The Stull herd average started on its way up when Wes Heron, GLF Dairy Representative, enrolled the Stulls in the Profit Feeding Plan in the fall of 1960. Mr. Stull and his wife (who takes an active part in the management of the herd) followed very closely all 10 PFP herd improvement principles.

The result has been a steady increase in production and income for the Stulls every year.

"GLF's Profit Feeding Plan helped us make these increases," Mr. Stull says, "and we're staying with it."

Profit Feeding Plan results

In the last three years 7486 dairymen have enrolled in the GLF Profit Feeding Plan. Approximately 85% of those herds with DHIA records have shown significant gains in income.

Here are the DHIA figures of some 483 herds using the GLF Profit Feeding Plan.

51 herds... \$62.35 increase
(average per cow income-over-feed-cost over the previous year)

60 herds... \$33.63 increase

102 herds... \$26.96 increase

199 herds... \$15.03 increase

71 herds showed no appreciable gain

Tests on high-grain feeding

In the same three years, GLF has been conducting high-grain feeding tests on selected dairy farms. These tests show that 7 out of every 10 dairy cows will respond to high-grain feeding in early lactation. Test increases by individual cows ranged up to 6,000 lbs. more milk per year.

GLF HIGH-GRAIN FEEDING TESTS

Year	No. of cows on test	Grain feeding above Morrison's Standards	Average Production Response
1960	442	35% above	2,031 lbs.
1961	224	47% above	2,462 lbs.
1962	69	46% above	3,750 lbs.

The money-making potential varies from farm to farm. The price of milk, the cost of concentrates and formula feeds, the quality of the cows, forage costs and quality... all will affect the amount of money to be gained from challenging your cows with higher grain feeding. But the gain is there. All you have to do is try it.

Find out this fall how much more money GLF's Profit Feeding Plan can make for you. Enroll in PFP today, by contacting your GLF Dairy Representative. Cooperative GLF Exchange, Inc., Ithaca, N.Y.



DAIRY FEEDS AND SERVICES



A Lesson in Business Management

By GORDON CONKLIN



Don Jewett and one of the trucks he uses for transporting eggs to retail outlets in the area around Schenectady, New York.

MOST people agree that a successful poultryman should know a lot about "hen husbandry." Don Jewett of Duanesburg, Schenectady County, New York, qualifies on this basis, but he also emphasizes business management — something over and beyond the ability to get high egg production.

In 1959, a business consultant firm was hired to look the farm setup over from top to bottom. Two men spent a week at the farm developing the framework for two corporations, setting up a double entry accounting system, making recommendations for changes in the business, preparing an estate plan, and working out a profit-sharing arrangement. "It cost a lot of money," says Don, "but it was well worth it."

Two Corporations

There are actually two corporations, both controlled entirely by the family. One, the Jewett Real Estate Corporation, owns the real estate, and the other (Jewett Poultry Farms) rents it from the first corporation. It's a flexible setup that is easily adapted for later participation by the children—two girls who are now 12 and 9, and one boy who is 15.

Another part of business management here concerns marketing; for 18 years eggs have been sold to stores in the area for a bonus of around 9 to 10 cents per dozen over Urner-Barry wholesale prices at New York City. On the production from 40,000 layers, this bonus adds up to quite a stack of change in a year. Don says, "If eggs are retailing for 40 cents a dozen, the middleman gets about the same spread as he does when they're selling for 60 cents a dozen. Taking over the functions of the middleman makes me 'sure' of this money, and in bad years it can be the difference be-

tween profit and loss. Besides, quality control is much simpler when I process my own eggs."

However, he knows from experience that there isn't any easy money in this business of handling eggs—cleaning, grading, candling, cartoning, delivery, providing stores with a quality guarantee and exactly what they want in size and quantity. When I visited him he was supplying nine A&P stores, a Borden's warehouse, and a considerable number of independent groceries and dairy outlets. "Chain stores keep a close check on quality," Don says. "A company representative stops at the farm quite often to look everything over and to candle a random sample of eggs."

Five girls are employed in the egg room; Mrs. Jewett oversees this part of the business along with her work at record-keeping. Using plenty of equipment, Dorothy and the egg room crew can handle 140-145 cases in a nine hour day, working three days a week. Eggs—gathered three or four times a day directly into filler flats—are kept in a holding room at 55°F. before being washed and graded. This temperature is low enough to protect quality, but high enough so eggs don't sweat or check during the grading process done in a room at considerably higher temperature.

Cartoned eggs are held at 42°F. and frozen eggs are stored at -15°F. in cans holding 30 pounds each. "Bakers like to use frozen eggs after they have been stored 60 to 90 days; they claim aging makes them thicker," says Don. The customer is always right, so the Jewetts have a walk-in freezer with capacity for 225 cans.

The housing arrangement includes both floor and caged systems. There are 2,500 birds in large colony cages (20-25 birds per 3' x 4'

cage), and 10,500 in 12" x 16" cages (3 birds each). The rest are on the floor with about two square feet per bird.

New Poultry House

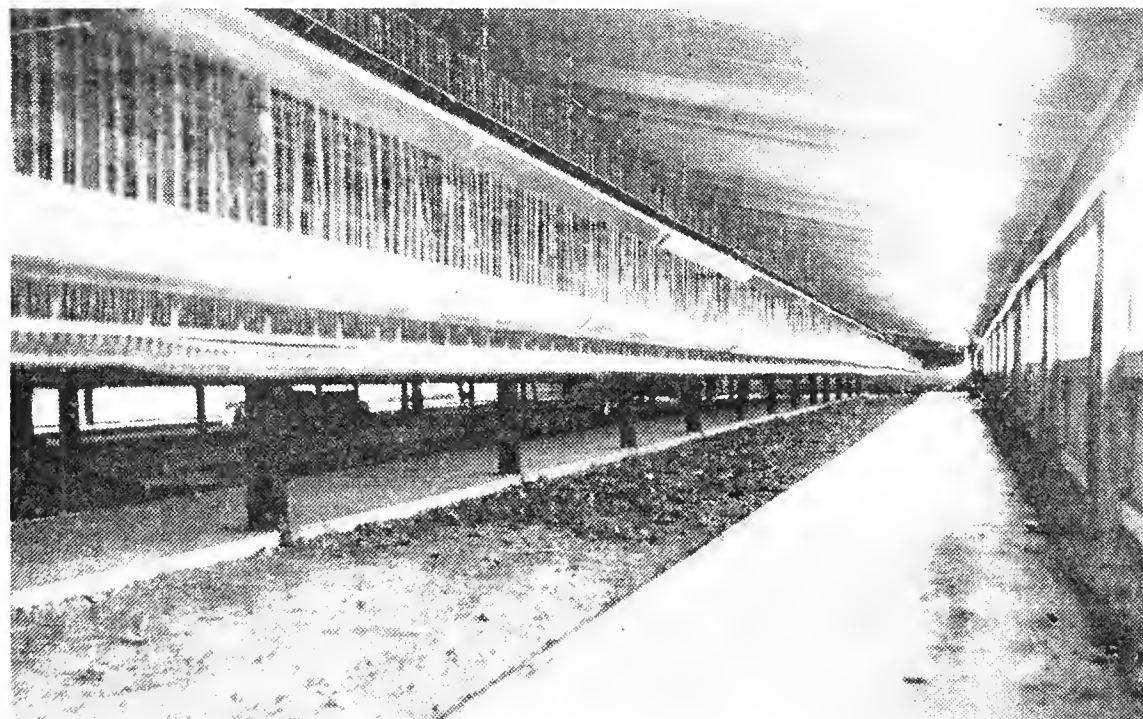
A new poultry house has recently been completed, containing five rows of stair-step cages. Don decided to put a concrete floor only between the rows, but left a dirt floor directly underneath each row. From observations of other setups he concludes that he will need to clean manure from under any given row only once every four months.

Because there are 180 acres in the farm, the Jewetts have had no problem with manure disposal. Vegetable growers in the area take one-half to two-thirds of it, either dropped into their trucks from building clean-out chutes, or loaded from a pile into which Don unloads with a dump truck. The rest is spread on the farm.

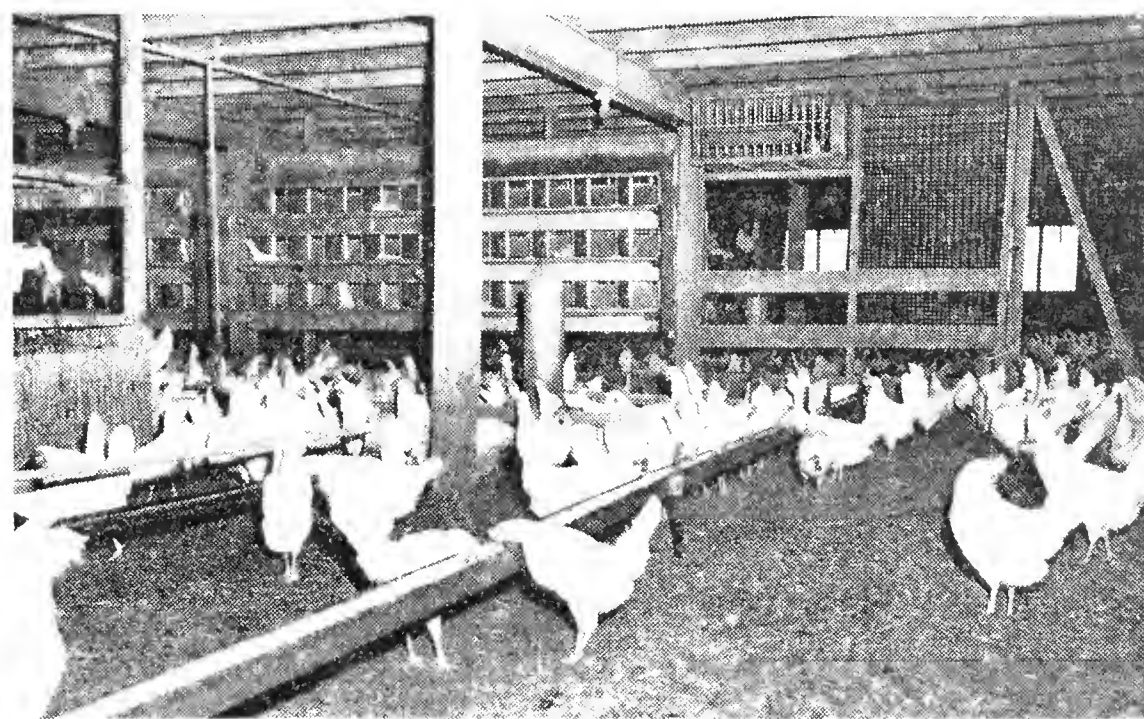
Leukosis is the disease problem about which Don is most concerned. He purchases all his replacements at an age when they are ready to lay, partly because he had disease problems when he bought chicks and hired someone to grow them. He now buys pullets from hatcheries that accept some financial responsibility for leukosis outbreaks. Even so, Don keeps track of the progress of each group during the growing period so he knows pretty well what he is getting before they arrive.

What is Don's secret of good management — of staying on top of a business this size and supervising a dozen employees? Attention to details is certainly one thing; Don sees the little things (such as feeders that are too full) — and does something about them before they become big things. He knows how to get along with people — whether hired help or

(Continued on Page 15)



This cage layer set up has only recently been completed. Cages arranged in a stair-step pattern are suspended in 5 rows of areas of earth floor. It is designed to house 9,300 birds, 3 in each cage.



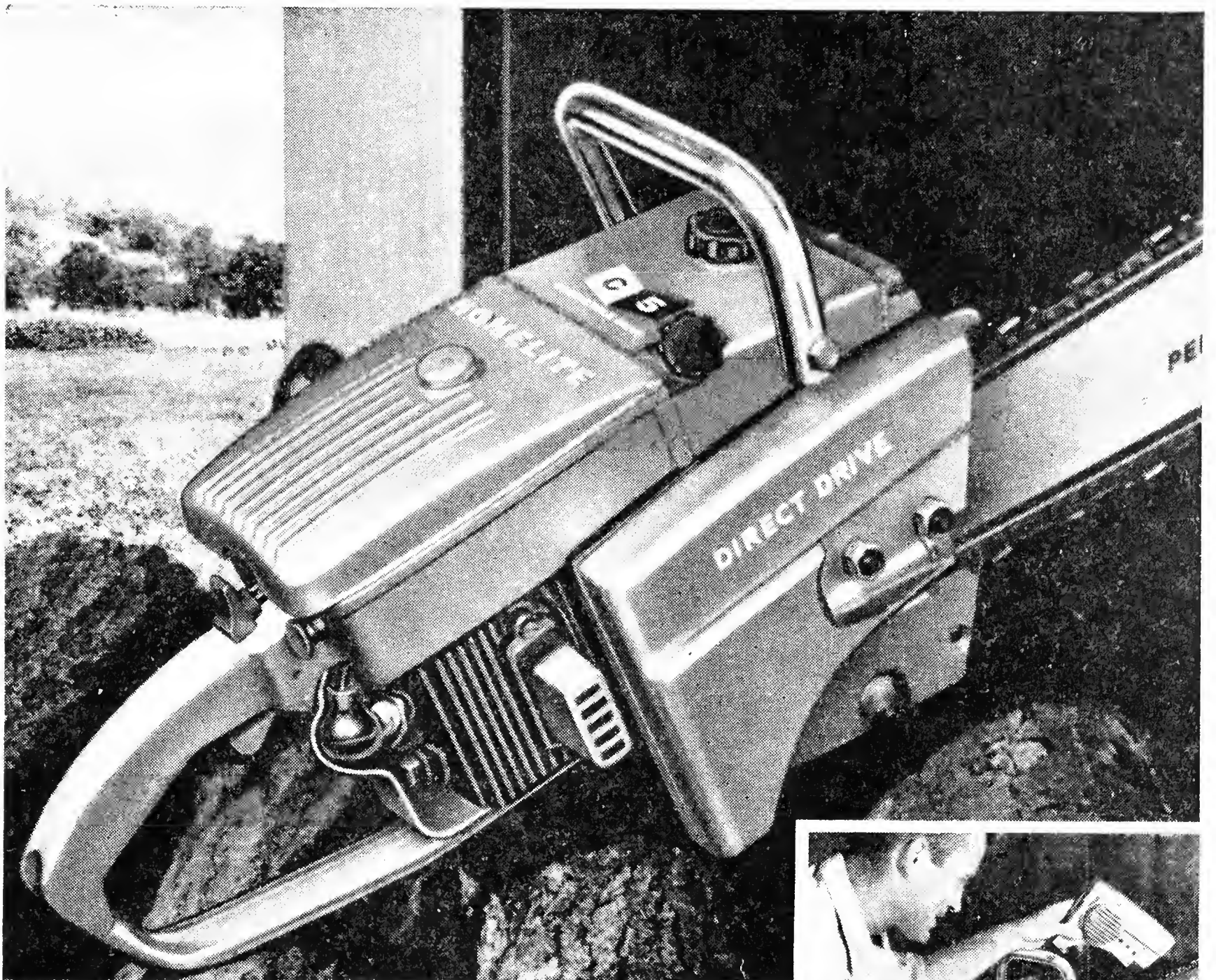
Although moving toward more cages, the Jewetts also have some birds on a conventional floor system. Don likes to plan major changes well in advance and gain experience with new arrangements before discarding the old.

See Your Homelite Dealer

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New Idea in Chain Saws A Whopping Success!

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These trim, compact chain saws were designed to make your life a bit easier. They're lightweight and perfectly balanced for simpler carrying and sawing. They have Homelite's special "hot spark" ignition which means they start fast no matter what the weather. A super-efficient muffler makes them run smoother. An oversized air filter gives you maximum cutting time between cleanings. And with Homelite's exclusive conversion unit, your C-5, C-7 or C-9 can be converted from Direct to Gear Drive in just 9 minutes. This gives you

the convenience of having a fast-cutting Direct Drive for general purpose use, or a powerful Gear Drive with the extra lugging power for tough cutting jobs.

See the C-Series at your Homelite dealer (he is listed on this page). He will help you pick the model with the power and performance that are right for you. Cut with it! Convert it! Convince *yourself* — you can't buy more chain saw for the money.

Costs as little as \$149⁹⁵ Direct-Drive C-5 with 14" bar and chain

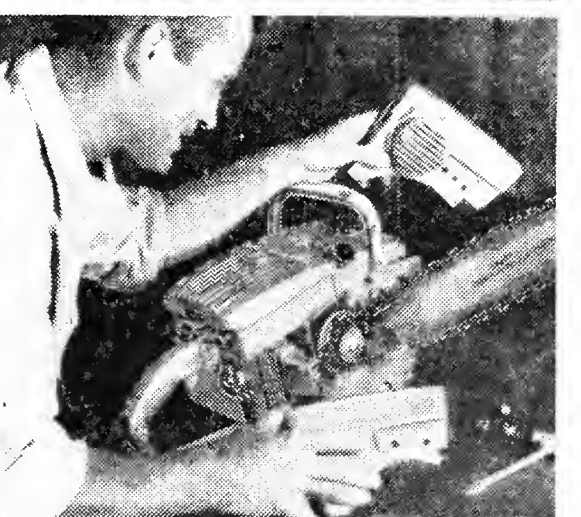
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Saranac—Mr. Jon T. Ryan
Saranac Lake—Moody's Sales & Ser., 7 Duprey St.
Saugerties—Kerent, Route 5—P.O. Box 13
Mt. Marion Rd.
Savannah—Dickens Bros
Schroon Lake—Lakeview Outdoor Center
Seotia—Wayside Acres
Skaneateles—Bobbett Implemen & Tractor Co., Fennell Street—1 O Box 9
Smyrna—Mr. John E. Blanchard, Route 89—Main St.
Sodus—DeLaver Bros.
Southampton, L. I.—Wm. A. Frankenbach Garden Center, North Hwy., North Main St.
Speculator—Mr. Gerald Buycie
Spring Glenn—Schamp and Benton, Route 209
Springville—Warner Lumber Mill, Route 1
Stamford—Elkhind Farm Machinery, P.O. Box 216
Staten Island—Forest Equipment Co., 1319 Forest Ave
Staten Island—United Rentals of S. I., 2874 Richmond Stone Ridge—Dedrick Pow., Equip. Co., Cottskill Rd
Summitville—L. Finkle & Son, Inc., Route 209
Syracuse—Alexander Grant's Sons, 935 Erie Blvd., East Troy—Mr. E. P. Goyer, R.P. 1, Box 35
Troy—Troy File Works, 249 Congress St.
Trumansburg—Millsbaugh Bros., Cayuga St.
Tupper Lake—Hercy St. Onge, P.O. Box 895
Warrensburg—Carl R. Keuson, Route 1
Warwick—Walter Equipment Co.
Waterloo—Seaway Marine, Inc., 473 Waterloo, Geneva Rd.
Watertown—White's Lawn Supply, Route 4 (c/o C. Howard White)
Wayland—Gross & Dudas, 12 Main St.
West Albany—Able Trac & Equip. Co., 72 Everett Rd.
West Brighton, S. I.—Timalawn Equip., 240 Cove Rd

West Hampton Beach, L. I.—West Hampton Fuel 112 Montauk Hwy.
W. Henrietta—James R. Hanna, Inc., 6800 W. Henrietta Rd.
West Middlesex—Thompson & Mateo
Westport—Marshall F. Fish, P. O. Box 14
West Winfield—West Winfield Farm Supply
Whitehall—N. H. Macleod Saw Shop, Comstock Rd.
Whitney Point—H. A. Penningroth & Son
Williamsville—Butner Tool & Supply Co., 74 Cranburie Lane

NEW JERSEY

Allendale—Allendale Equipment Co., 317 Franklin Turnpike
Bayonne—Allied Equip. & Sup. Co., 691 Broadway
Bayville—Dover Supply Co., Mill Creek Rd., P.O. Box 227
Bergenfield—Bergen Rental Service, Inc., 150 S. Washington Ave.
Blairtown—J. C. Roy & Son
Branchville—The Roy Co.
Cliffside Park—Haltom Hdwe., 666 Anderson Ave.
Clinton—P. G. Berger & Co., P.O. Box 5286, Rt. 22
Dover—Handymans Tool Shop, Centergrove Rd. & Route 10
Elizabeth—A-M Tool Rental, 68 Cherry St.
Englishtown—Joseph J. Szczepanik, Union Val Rd.
Florence—Harkins Sls. & Ser., Rte. 130, Cedar Lane
Freehold—C. H. Roberson, Inc., 29 Court St.
Garfield—Ralphs Hwy. Ser., Rt. 46 & Blvd.
Gladstone—G. F. Hill & Co.
Hackettstown—M. R. Bowers & Son, Inc., 128 Willow Grove St.



Hanover—Do It Yourself, Inc., Route 10
Hazlet—Service Equipment Co., 3111 Route 35
Hewitt—Sportsman's Boats & Motors, West Shore Rd.
Kearny—Morris Hardware & Paint Supply Co., Inc., 101 Midland Ave.
Lambertville—Mr. John Kurz, Route 1
Ledgewood—New Jersey Lawn & Power Mowers Equipment, Route 46
Livingston—Needham's Grinding Service, 119 W. Mt. Pleasant St.
Madison—Trac & Lwnmr. Sales & Ser., 331 Main St.
Maplewood—Gauthier Door Check, 2 Burnett Ave.
Medford—Mr. Fred Myers, Jr., Route 2—P.O. Box 301
Middletown—Monmouth Mower Shop, 656 Route 35
Monroeville—Mr. Albert Weber, Route 338 Swedesboro-Franklinville Rd.
New Egypt—Mr. J. R. Caines, Route 329
Northfield—Mr. Vic Collins, 2101 New Rd.
North Plainfield—Unter Rent-Alls, 714 Route 22
Oakland—Bergen Power Equipment, 393 Valley Rd.
Old Bridge—Old Bridge Tractor RFD—P.O. Box 328
Old Bridge—W. J. Rainand, P.O. Box 35, Highway 9
Pine Brook—Shulman Tractor Co., Route 46
Princeton—Town Saw Shop, Tulane St.
Riverdale—Wayside Garden Center, Route 23
Riverton—Riverton Farm & Garden Sup., Inc., Rt. 139
Sparta—Sparta Hardware, 182 Woodport Rd., Rt. 15
Summit—Glejay's Mwr. & Gdn. Shop, 385 Springfield Av.
Sussex—Len's Service Station, Route 1
Union—Rent-A-Tool, Route 22
Vincentown—Wells Mobile Service, Route 206
Vineland—Swanson Hardware Supply, 553 N. E. Ave.
Waterford—Rusnak Bros., Inc.
Williamstown—Wood's Lawn & Garden Mart, 311 S. Black Horse Pike

Latham, N. Y.; 1659 William St., Buffalo 6, N. Y.; 2518 Erie Blvd., East Syracuse 3, N. Y.; 39 River Road, North Arlington, N. J.; 122 Amboy Ave., Woodbridge, N. J.

How To Paint Metal

THE KEY to satisfactory metal painting is the use of the proper primer on the metal—and, of course, correct preparation of the surface. As you know, iron and steel corrode by rusting—and this will eventually eat away the metal if not checked: aluminum loses its bright sheen and turns dull; copper and brass lose their shiny appearance and produce an ugly downwash onto clean painted areas below. Galvanized metal will also rust when the protective zinc coating wears away, and becoming dark and dingy loses much of its heat-reflective properties.

What to do? First and most im-

portant, use only good quality primer and paint. Consult with an established dealer—or check with a friend or neighbor who has had a satisfactory paint job.

When the old finish of iron and steel is in good condition, clean the surface by washing with turpentine or paint thinner. Use sandpaper or steel wool to take off any loose or flaking paint and any rust spots. If the bare metal is exposed by this sanding, prime the spots with red lead or zinc chromate. You can get self-spraying aerosol cans of these primers.

It takes a lot of hand sanding, power brushing, etc. to clean a heav-

ily rusted metal. Instead of working up all this sweat, you can get special primers to be applied directly to the rusted surfaces, provided they are not broken. The oil in the primer penetrates into the rust, binds it, and prevents further rusting. Of course, any loose rust must first be brushed away or the paint will not stick.

Whichever method you use, let the primer dry hard before applying the top paint. This can be exterior enamel, trim and trellis paint, house paint, or some other product meant for outdoor use.

Wait until galvanized steel has weathered for at least six months before attempting to paint it. The most highly recommended primer for that is known as zinc dust-zinc

oxide paint. If this isn't available, ask your dealer for a primer meant to be used over galvanized steel. If the steel has been painted before and the old coating is in good condition, a primer isn't usually needed when repainting.

Don't wash galvanized steel with copper sulfate, vinegar or similar products. It has been shown to be one of the best ways of insuring paint failure!

If you want to paint new aluminum, then it **should** be given a turpentine or solvent wash beforehand. Even better is a product containing phosphoric acid which is designed to condition aluminum to accept paint.

Where aluminum has weathered for a month or six weeks, the only thing necessary is to remove oil and dirt with a solvent. Don't try to remove the dull gray aluminum oxide, because oxidized aluminum is one of the easiest of all metals to paint.

Any exterior wood or metal primer makes an excellent first coat for aluminum—but if there is heavy corrosion, use zinc chromate. The top coating can be any suitable exterior paint or enamel, including aluminum paint.

If you want to keep the shiny metallic look of the aluminum, first wipe it with turpentine or paint thinner to remove any oil or grease. Follow with a clear, non-yellowing butyrate or acrylic lacquer.

Let your copper, brass and bronze weather until dull and tarnished before painting. Wipe off any dirt and oil with turpentine or paint thinner. The prime coat should be a zinc-free metal primer; the finish coat may be any exterior paint or enamel, preferably one that is zinc-free.

Should you want to keep the original metallic color, remove any grease or oil and follow with the lacquer mentioned for aluminum. Spar varnish can also be used, although it tends to yellow somewhat.

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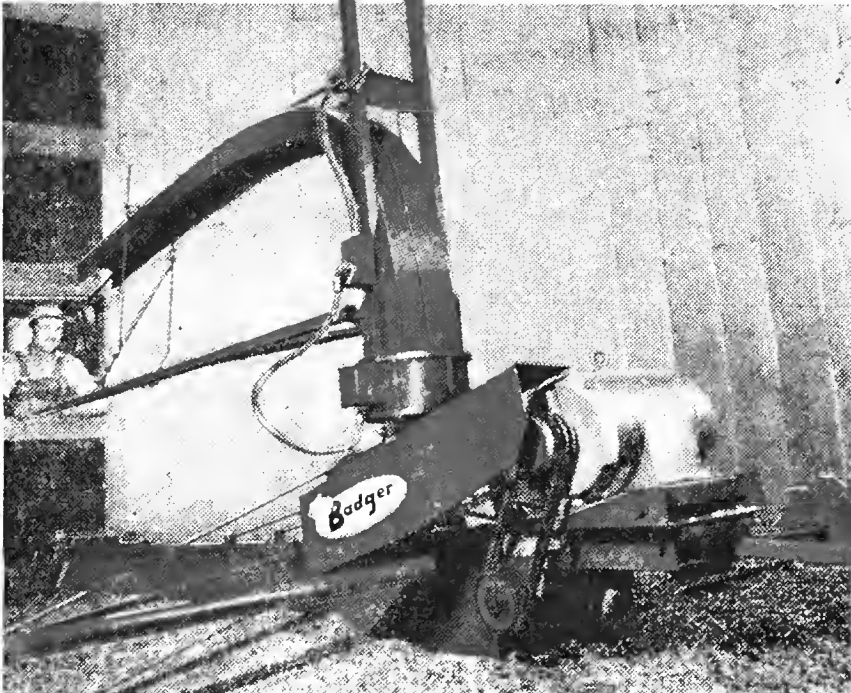
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GRANGE PROGRAM

To thousands of rural communities all over America the National Grange Community Service Contest, conducted in cooperation with the Sears-Roebuck Foundation, has brought "Success Unlimited" — which is also the title of a report on these community projects just released.

The Contest has been an annual affair since 1948, offering prizes for achieving community improvements that are deeply wanted for their own sake. As Alfred D. Stedman, a judge in the 1950 contest, said: "It dresses up in new clothes those two good old American institutions, free competition and personal initiative, and puts them to work on this job of community betterment."

As a successor to the annual Community Service Contest of the past sixteen years, the sponsoring organizations are offering a Community Progress Program, beginning October 1, which will be operated on a two-year basis. The participating granges are planning and conducting ever more significant projects, many of which cannot be completed in a single year. Thus, the new program will provide greater opportunity for long-term planning and action.

* * *

Tests indicate that for summer coolness, roofs should be light in color, oriented east and west, with slopes facing north and south, and be gable, hip, gambrel or shed types, with slopes as steep as feasible.

SOLD ON BEETS?

By GORDON CONKLIN

EVER BEEN called an S.O.B.? The term, I am told, has been widely used in Washington since the "steel incident." Down there it stands for -- not what you think -- but for Senate Office Building!

I have been called a few names for raising questions about the proposed sugar beet deal in Central New York. I have even been accused of being Sour On Beets.

Now, I'm all for moving along new paths and enlarging the dimensions of living with new ventures. But one thing I want to be sure of in this instance—that growers stand to benefit in the long run from the project, as well as plant site owners, ARA personnel, assorted politicians, associated industries, and unemployed people in cities. I spent a few years working as a county agent among farmers in Cayuga County; my respect and affection for them is such that I want to be sure they have all the facts.

Grower Letter

A letter came to American Agriculturist recently (in response to one of ours) from a gentleman in Wisconsin who can speak from experience. Even if Uncle Sam decides to smile upon sugar beets in Central New York with acreage allotments (and maybe some ARA cash), let's be sure that the mistakes of others get cranked into the planning involved so we won't have to repeat them. Here's what Mr. Wayne Moore, president of the Wisconsin Cooperative Beet Growers, had to say in his letter:

"I had a great interest in sugar beets here in Wisconsin, being the grower with the largest average acreage annually. You no doubt are aware of the fact that we are in our second year without sugar beets or a factory here in Wisconsin. Your question is, why?

"There may be a number of reasons, depending on who you talk with about it. I would like to say now that your state is similar to ours in that it is a dairy state, and your climate is similar with a growing season no longer than ours. Our board of directors discussed this question to no end and the following are our conclusions regarding reasons for the decline in acreage of sugar beets in Wisconsin:

- Not high enough net return—this is the big reason
- Too long hauls in many areas
- Too much delay in getting unloaded at the dump
- Outdated receiving stations
- Dislike of working with migrant labor.
- Specialization of farming (to dairy, beef, etc.)
- Requires extra investment in equipment
- Frequent wet harvesting conditions in the fall
- Low sugar content because of fall rains
- In some areas adequate trucking equipment not available
- Public relations between the company and growers were poor

In our opinion, here are the reasons our factory failed:

- Location of factory — long hauls, excessive freight costs
- Too small volume
- Production area spread too far, requiring too many country loading stations and field personnel
- Factory out of date—especially in storage and handling of beets
- Factory did not have an agricultural department (a necessity)
- Caliber of field staff too low

- Government control of the production and sales of sugar in the United States kept our factories operating on too narrow a margin, did not allow price increase to keep pace with cost of operations. However, it is also my opinion that if it weren't for the Federal Sugar Act, our factories would be almost non-existent.

"Now, on the other hand, there are some production practices being developed in the field that undoubtedly would help cut cost of production. They include space planting,

chemical weed control, and these two alone we hoped would eliminate most all migrant labor.

"It is our opinion that at present prices, the farmer must produce 15 tons per acre to compete successfully. Our state average yield was something less than 12 tons per acre. Michigan averages about 15, Ohio 17, Illinois 19 (less than 2,000 acres).

"Here are some points to consider in the beet industry:

1. A beet industry should have a minimum of 15-20 thousand acres.
2. All acreage should be within 30-35 miles of the plant; this is most important to the producer.
3. Sugar beets are a high cost crop to produce. Following are some of

the costs over and above the average crop expense:

Fertilizer, \$20.00 per acre (or more).

Migrant labor, \$24.00 per acre (without space planting).

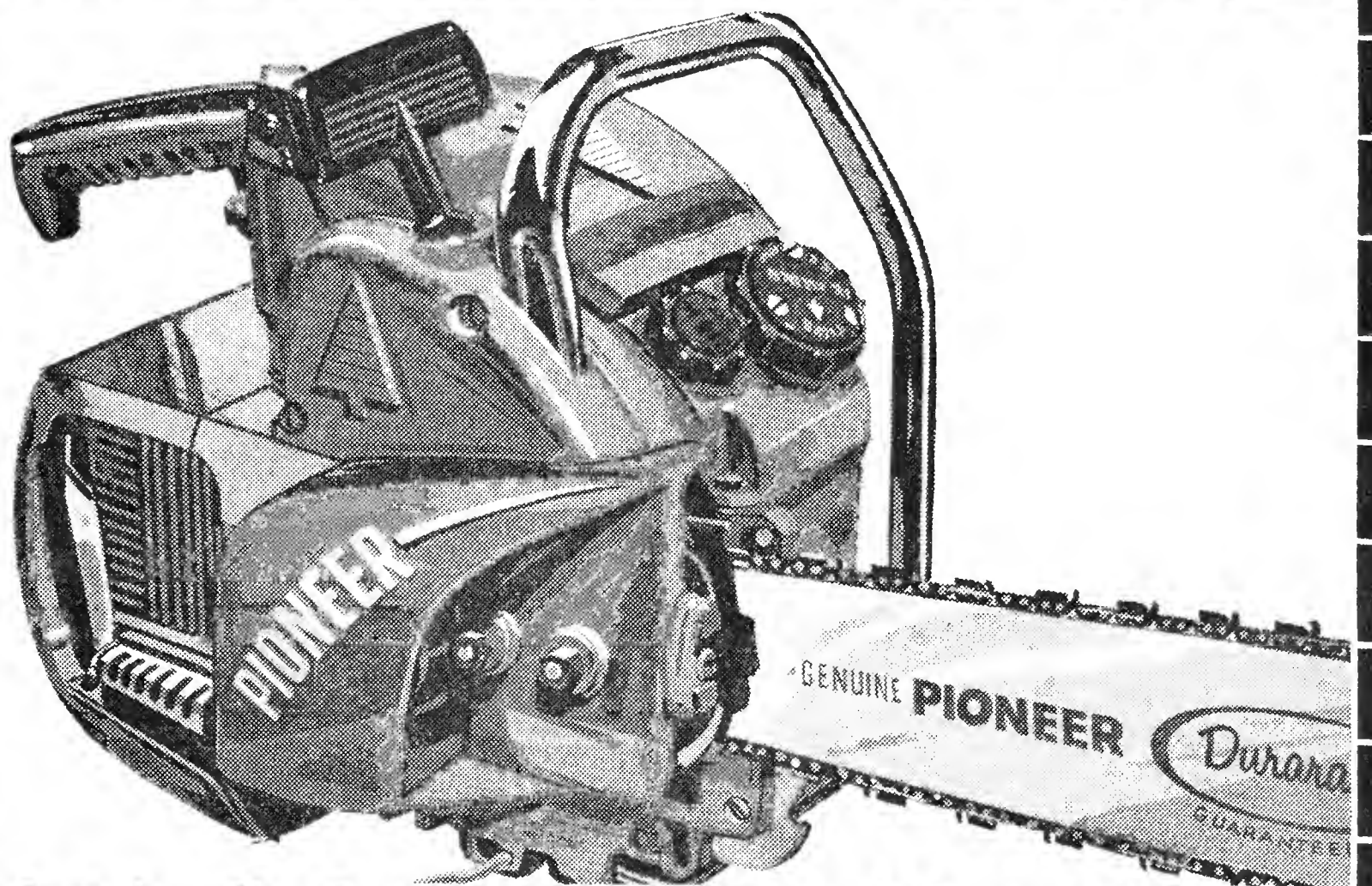
Harvesting, \$25.00 per acre.

Trucking, \$25.00 per acre.

Total, \$94.00 per acre.

"On the basis we worked on here in Wisconsin, the above total would be about the return of 9 tons of beets.

"Beets require about the same type soil, fertility, climate, etc. as corn. Land drainage should be real good. Twenty tons of beets and a 100 bushel crop of corn are comparable, but it is lots easier or more sure to grow the corn crop here in Wisconsin."



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TAKE COVER!

A stranger around here would be inclined to take cover or prepare for an invasion. Morning, noon, and night the banging and booming continues, all part of an attempt by farmers to scare the starlings and blackbirds out of the cornfields.

It's perfectly clear that all this effort cannot succeed. No birds are killed or maimed, so of course they continue to feed somewhere. At first the banging chases them from one field to another—your own or a neighbor's. After a few days of the noise they may move away from the firecrackers or the "cannon", but if the field is of any size they still have lots of areas in which to feed.

All agree that a better way to protect the crop is needed. Some West Coast people are using a repellent, but it would appear that no one wins on this one except the chemical companies. Like the noisemakers, a repellent would only drive the rascals to the neighbors, and everyone would soon be forced to use it. Something better is needed!

I'm well aware that fruit and vegetable men also suffer from these pests—not to mention their damage to small grains. And many urban centers also have their problems with these birds—especially the starlings. Officials have blamed them for plane crashes. In rice-growing states they are a menace, too.

In view of the tremendous economic damage they do, it is unbelievable that we have no way to eliminate them; this after 30 years



Gayway Farm Notes

By HAROLD HAWLEY



of research by the various government agencies and colleges.

I'm a firm believer in research, getting the facts first, and then moving on a problem. However, the time for action has arrived. Either there is something wrong with the research, or there is too much reluctance on the part of some government officials to risk public reaction to a widespread blackbird, grackle, and starling eradication program.

This is not an individual farm problem. As these are migratory birds, it is one the federal government must tackle. Guess it is up to a lot of us to contact our legislators and ask for action—not endless research!

WHERE THERE'S A WILL

Where there is a will there's a way to settle up an estate better than where there is no will. No one will argue this point, yet it's a surprising fact that a great many farm businesses are left to survivors

without a proper will. Possibly the word "proper" is almost as important as the word "will."

A will gets out of date pretty fast. Children are born, or die, or marry, etc.; brothers and sisters pass on; soon the things called for in the will can no longer be fulfilled. Also, in the case of additional children being born after a will is drawn, it is just plain unjust if they are not provided for because the will is not kept up to date.

We haven't done it yet, but we are considering listing all our insurance policies in our wills. Seems to us it might be quite a help to have a listing of all such property when the time comes to settle an estate.

I expect we mostly put off those things we hate to do or think about. Buying a family plot in the cemetery and making a will seem to be the two things we all should do, yet all of us procrastinate. Certainly the kindest thing we can do for our loved ones is to leave our property in such shape that it goes to those

we want to have it, and without a lot of hard feelings, delays, and legal battles.

One thing I have decided is that I'm not interested in leaving Doris the life use of the farm. Certainly if a son or daughter is ultimately to inherit a business they should get it immediately, so they can sell it, borrow against it, improve it, or do whatever is needed. Too many life use situations tie up a farm for so long that the ultimate heir cannot operate it in a normal or economic way.

We are agreed that if there is any other property the widow should get that and the one who is to run the farm should get it outright and immediately. Then any additional arrangements for the support of the widow can be made without hampering the running capacity of the heir who has the farm.

FALL SEEDINGS

Our lodged winter barley almost completely smothered the grass seedlings in them. This wasn't surprising when you consider that the crop lay flat from May 29 to mid-July when it was combined. It was heavy enough to bale 1½ tons of straw to the acre, plus a fantastic yield of grain.

One field of barley stubble was plowed up and seeded to winter wheat; another one was pastured off (considerable volunteer barley grew up), then grass seed was broadcast right on the stubble. This was a gamble and results are as yet uncertain.

(Continued on Opposite Page)

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YOUR HEADQUARTERS FOR SUPERIOR AI PROVED Sires

(Continued from Opposite Page)

We are going to plant grass seed with the drill as we sow wheat in one field. This is new for us as we have always broadcast our grass seed in the spring. If this works, it will save a job each spring when we should be doing something else. Wilson Robbin from King Ferry reports that under his conditions this works well. He uses pieces of hose to make his grass seed fall behind the drill and not get covered too deeply. We will follow this practice.

HORSE FEVER

"Crazy over horses" applies to a lot of us if we may judge from what we see at the State Fair (excuse it, please—Exposition). New pole sheds have been added to house the horses, and it has become necessary to move the horses in and out of the grounds by kinds and classes in order to have room. Western style horses (quarter horses, etc.) held forth even before the Fair began, then draft horses and horse-pulling held the stage in mid-week, to be followed by four days of competition for the gaited horses, the roadsters, and the fine harness classes.

The size of the classes, the magnificent animals shown, and the fine horsemanship displayed are all the evidence necessary to indicate that "horse fever" has hit the great Northeast hard. It's wonderful to live as close to Syracuse as we do. We can milk a little early, and thanks to the Thruway be in the Coliseum at the Exposition in time for a full evening of solid enjoyment. This year we made it three times!

APPLES

Like many other farms in this area, ours had a modest apple orchard on it several years ago. It was back of the barn and a real nuisance. Our equipment wasn't suited to work under the trees, and our cows were always giving us fits getting into the apples. One by one the trees grew old and were cut. We are down to just a few now, and my feelings are mixed. Nothing tastes better than a crisp Mac as we drive by with a load of silage. While our fruit wouldn't suit if we were paying for it, no complaints are ever heard when we just go out and pick an apple, or a pail of them for pies. The trees around the barn are a real headache, but I hate to think of the day they will all be gone. Even our health may suffer when we cut down from the unbelievable rate of consumption that occurs when we can snatch an apple as we drive by! It goes against my grain to work around these trees,



but I guess they can stay awhile longer.

VOTE ANYWAY

In this "off year" election, too many people will just not bother to vote. Actually the primaries are the important elections in many communities. Good government, like charity, begins at home. It is doubly important that we pick the right people for local office; many of these men will later be going on for something bigger if they can.

CANAL TRAFFIC

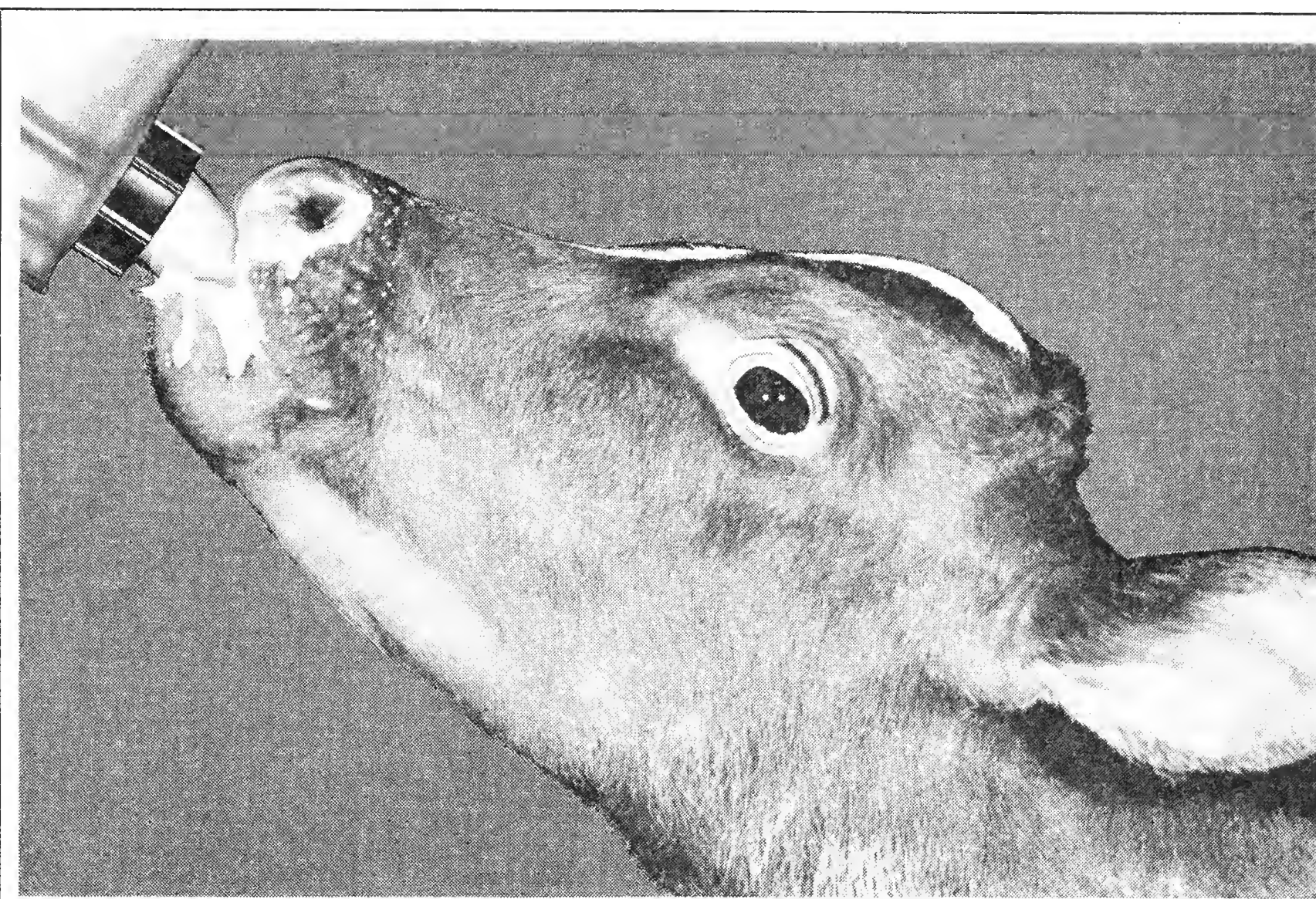
We have land along the Seneca River—Erie Canal. Not too many years ago there were many oil

boats and grain barges, etc. on the water; it wasn't uncommon to see several a week. On Labor Day we were plowing the oat stubble on a field near the river. All day only one barge went up river, and possibly 100 pleasure craft went by. This pretty well summarizes the switch in the use of the canal. Naturally I have nothing against the pleasure craft using it; I'd like to be out there myself in one of those luxury cruisers. The point is that so far as can be observed the canal no longer serves much of its original purpose.

There is some agitation for a Lake Champlain canal which would be wide and deep enough to allow ocean-going vessels to cruise down to Lake Champlain from the St.

Lawrence. Now, I know almost nothing about the situation up there, but before a lot of our tax money is spent on such a venture, a thorough study of potential traffic surely should be made. It takes a lot of tonnage to even justify maintaining such a canal, with its locks, lights, feeder streams, etc., etc.

If the railroads or the trucking industry can get the goods to and from the St. Lawrence (and they surely can) it might be possible to get a lot more transportation for our tax money by giving extra attention to the highway needs of any new industries, or of any existing industry, for that matter. Good roads and railroads would benefit everyone.



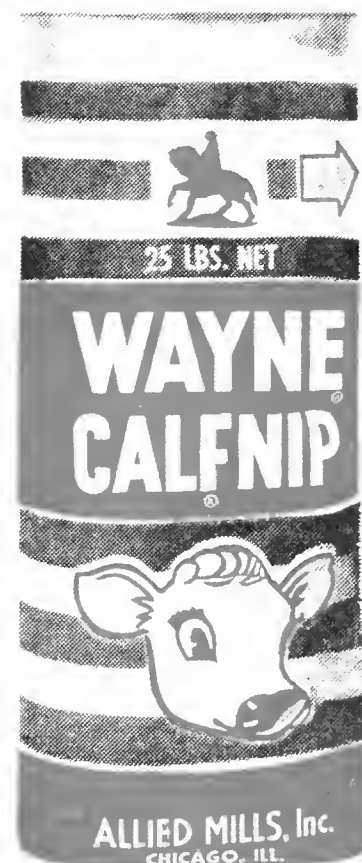
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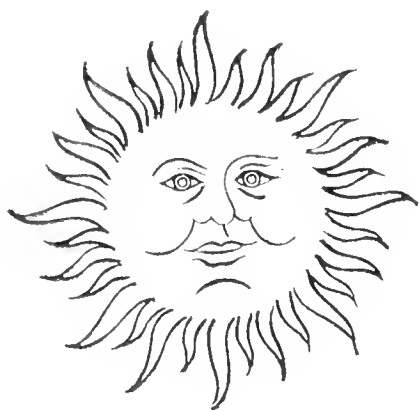
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SUMMER FORAGE Feeding Programs

by CHARLES L. STRATTON

Good management means planning ahead, including such things as next summer's forage program. Here is how it's being done on three northeastern farms.

NEW HAMPSHIRE

THE RICH-WAL Farms, Westmoreland, New Hampshire, owned by Dick Lawson and Walter Derjue, has 60 registered milking Holsteins. The total livestock, including young stock, is about 140 head. Formerly the partners rented a Rhode Island farm, but, wanting a farm of their own, a year or two ago they moved lock, stock and barrel to New Hampshire.

Last year their herd had an average of 14,997 lbs. of milk, and 619 lbs. butterfat. For a couple of years their herd's

average was over 18,000 lbs. of milk, 700 lbs. butterfat, and they expect to do this again as soon as they are completely adjusted to the new farm. They milk three times a day.

The farm is well adapted to strip grazing. A 93-acre meadow stretches out between the roadside barn and the Connecticut River, divided into 14 strip grazing plots by electric fence. Each plot is 7 to 12 acres, approximately 215 feet wide, 1,200 to 2,100 feet long.

A runway, shaded in sections by trees, extends along the entire end of the field parallel to the road, so the cows have freedom of movement from the pasture up to the barn door anytime. Cool fresh water is available from four tubs set at intervals in the runway.

An Acre A Day

Under normal grazing conditions the milking herd eats about an acre a day, and the fence—one strand of electric wire and four metal posts—is moved three times daily, in the early morning, afternoon, and about dusk. A man un-hooks one end of the electric strand, walks across the field, picks up the posts, and hooks to the new location. Then, picking up the opposite end he moves it across the field, making only two easy trips in less than 15 minutes.

One big disadvantage of the strip grazing is that it keeps the partners changing crossfence. A bicycle is used to drive the cows, and if youngsters go after them they use a pony.

Weather and forage conditions determine the length of grazing in each plot. Generally the cows are shifted into a new piece every ten days, but in the summertime heat it varies from four to ten days. If a plot gets ahead of grazing, it is hayed.

Continual Reseeding

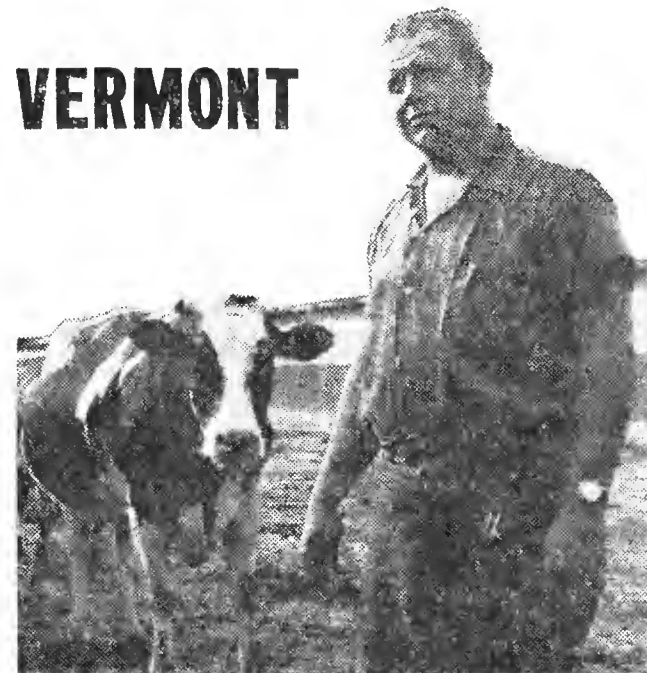
Each year two or three sections of the strip meadows are reseeded in the fall to rye for fall and spring grazing, followed by a corn crop, then reseeded with a mixture of alfalfa, ladino, timothy and red clover. Two plots are kept in orchard grass, a later-maturing variety (S-37) that produces a heavier yield than common orchard grass and stands the hot weather well. Dick Lawson says: "Orchard grass is not as palatable as clover, but it makes good hot weather forage, and recovers quite rapidly after cutting."

They keep a close watch on the orchard grass. Lawson warns not to wait too long before grazing, and to graze it a little short. If it gets too coarse he finds cows won't graze, and they've had it so coarse they couldn't cut it. They get a "terrific response" from it for summer pasture. It is rotated like the other strip grazing plots, and a total of 150 pounds of nitrogen is applied in three

50 pound applications with a regular spreader, usually after the first cutting. The plots were grazed twice this year by mid-summer, and they plan to graze them again.

The cows are grained when they come in for milking, given hay after milking, then put out to pasture. Young stock are pastured all summer. Backing up the forage program are some 55 acres of corn and about 70 additional acres of hayland.

VERMONT



Bruno Bazin of Hackett Farms.

ZERO GRAZING

ZERO GRAZING is used at Hackett Farms, Westminster, Windham County, Vermont. The owner is Earl E. Hackett, and the manager is Bruno Bazin.

This is a really big farm with about 600 livestock and 487 milking Holsteins. The milkers work in three shifts round the clock—and the farm is a paying proposition.

Bazin turned to examine a load of green grass being dumped for feeding in one of the low barns. He shook his head, saying:

"I made a mistake. We had some places where the hay was good, but I couldn't use the baler. We have over 300 acres of hayland, and as I wanted to shorten the haying season I switched over to feeding green grass."

He went on to explain that he'd done it for the past ten days, but he was going back to his regular summer forage feeding program, 50 percent corn silage and 50 percent brewers' grain (mixing corn and brewers grain as corn is unloaded), averaging about 40 lbs. per cow per day, plus 3 lbs. of pelleted 16 percent dairy ration per cow at each milking. Milkers also get hay daily, well sprayed with a molasses and water mixture.

Backing up this forage program is 568 acres of field corn, mostly Wisconsin 335, Pa. 602A, and ES-508. Out of 300 acres of hayland there are about 100 acres of alfalfa; the balance is general hay. Much of the cropland is rented. Bazin says it's cheaper to hire the land than to own it today.

He tried challenge feeding, grain feeding each individual cow up to its peak milking capacity, but he found that it required too much watching with such a large herd. Now the cows are all fed the same way without any variation in feed between individual animals.

Three Shifts

The cows in the three barns, 160 head in the two conventional tieup barns and those in a free stall pole barn are milked twice daily. Two experienced milkers work each of the three shifts.

(Continued on Page 20)

— American Agriculturist, October, 1963



Dick Lawson likes strip grazing for his 60 cows.

Dates to Remember

October 8-10 — Annual NEPPCO Conference and Exposition, Harrisburg, Pennsylvania.

October 9-11 — Future Farmers of America National Convention, Kansas City, Missouri.

Oct. 10-11—Pennsylvania Association of Farmer Cooperatives Annual Meeting, State College, Pa.

October 10-19 — National Apple Week.

October 12-13—Horticulture Show, Ratcliffe Hicks Arena, University of Connecticut, Storrs.

Oct. 16-17 — Dairymen's League Annual Meeting, Syracuse, N. Y.

Oct. 21-24 — Pennsylvania State Grange Annual Meeting, Erie, Pa.

Oct. 24-25—Annual Meeting, G.L.F., War Memorial, Syracuse, N. Y.

Oct. 29-31—N.Y. State Grange Annual Meeting, Elmira, N. Y.

October 29-31—Cornell Nutritional Conference For Feed Manufacturers, Ithaca, New York.

November 2 — NYABC annual meeting, Ithaca, New York.

Nov. 5-6 —Annual meeting Massachusetts Farm Bureau, Chicopee.

Nov. 6-7 — Annual meeting Vermont Farm Bureau, Barre.

November 6-8 — New York Farm Equipment Dealers Association Annual Convention, Concord Hotel, Kiamasha Lake, Monticello, N. Y.

November 10-20 —Annual Session of the National Grange, Portland, Oregon.

Nov. 11-13 —Annual meeting New York State Farm Bureau, Utica.

Nov. 11-15—Seventh annual Pennsylvania Livestock Exposition, State Farm Show Building, Harrisburg.

Nov. 12-13—Annual meeting Connecticut Farm Bureau.

Nov. 12-13 —Annual meeting New Hampshire Farm Bureau, Concord.

Nov. 12-14—N.Y. State Insecticide & Fungicide Conference, Ithaca.

Nov. 14 — Annual meeting Rhode Island Farm Bureau, Providence.

November 15-23 — Royal Agricultural Winter Fair, Toronto, Canada.

November 16 — Annual Stockholders' Meeting of Pro-Fac, High School, Batavia, New York.

November 18-21 — Annual National Agricultural Outlook Conference, Washington, D. C.

Nov. 19-20 —Annual meeting New Jersey Farm Bureau, Point Pleasant.

November 19-20—New York State Dairy Herd Improvement Association Annual Meeting, Watertown.

November 22-28 —National Farm-City Week.

November 25-26 — Annual Pennsylvania Grassland Conference, Penn State University.

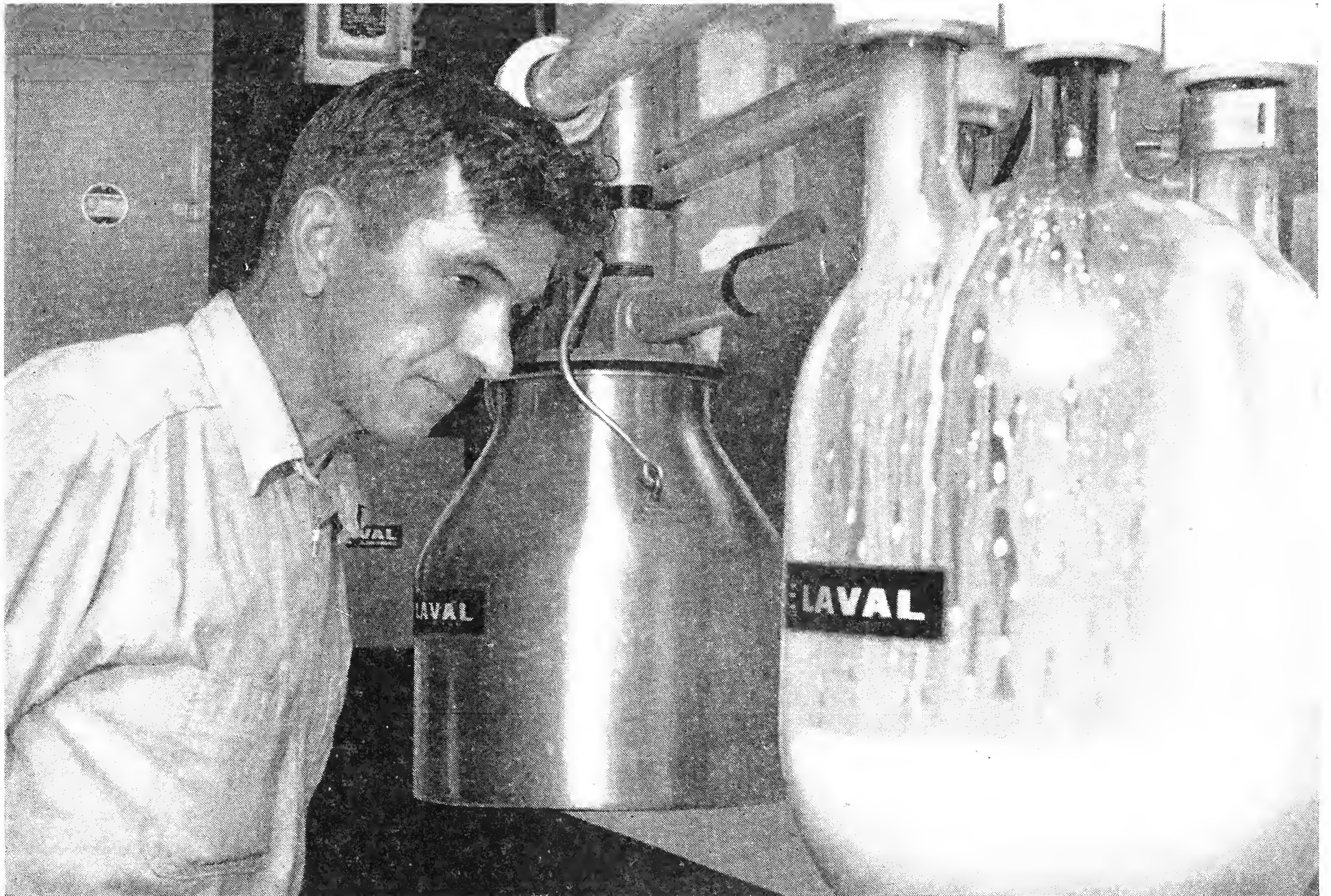
LESSON IN MANAGEMENT

(Continued from Page 8)

customers. This isn't a popularity contest, but rather the capacity to put himself in the other person's shoes.

The Jewetts are open to suggestion and are willing to accept what appears to them to be good advice. Flexibility in thinking seems to be a common denominator of good management.

And, finally, they are willing to work hard and bear a heavy burden of responsibility. Somehow, sweat and worry always seem to be a part of the recipe for everything worthwhile—good management works no magic that can replace honest effort.



Vincent Weidman, Oxford, New York

We get 4 pounds more milk per cow daily (and the new fast-milking De Laval is gentle)

Read how Vincent Weidman of Oxford, New York, gets four pounds more milk per cow daily with the new *fast-milking* De Laval.

"We've seen some increase in production, about four pounds per cow per day, since we changed to the new De Laval units.

"We're also milking faster. In fact, we're milking 47 cows *one hour faster* with the new De Laval Combine*. This figures out to a savings of about two hours a day.

"Certainly, a good part of this saving is due to the pipeline system itself. However, I've no-

ticed that we can milk each cow a lot faster with the new De Laval units. About 30% faster.

"Udder health is a lot better, too."

Since he changed to the new De Laval bucket units from a different make of hanging milker, Ferris H. Todd of Bovina Center also has noticed an improvement in teat and udder health. He says cows stand better for the new

De Laval. No redness of teats or irritation.

Mr. Todd now ships 400 pounds more milk a day from his 60 cows.

We could go on and on, citing more examples of New York dairymen who milk faster, get better teat and udder health and more milk with the new *fast-milking* De Laval. Some right in your own county.

Find out more about it by asking your De Laval dealer for a free trial. Only 10% down, up to 4 years to pay. Or write us: The De Laval Separator Co., Poughkeepsie, N. Y.



Reg. trademark of The De Laval Separator Co.

Forages and Mastitis

RESEARCHERS at the Ohio Agricultural Experiment Station at Wooster have been working on long-term studies on mastitis, the results of which indicate that forages consumed by the cows may be an important factor in mastitis attacks.

Tests which measured the relative activity of mastitis bacteria in milk were developed and applied for several years. The results of these tests gave the first clues, and clinical observations have further pointed to the relationships with forages.

During the four-month period, in a small group of eight cows fed a ration of poor-quality hay and lib-

eral grain, five of them had seven attacks. Opposed to this, only two slight cases occurred in two cows in a similar group fed better-quality hay, forage crop silage, and moderate quantities of grain.

Another Experiment

In another experiment, a group of fifteen cows fed alfalfa-ladino-grass forage as greenchop had 27 attacks among them between June and September. Fifteen other cows in the same herd were milked and cared for with them, but fed forage crop silage. They suffered ten attacks, six in previously injured quarters.

The same experiment was repeat-

ed the next year, with some of the cows switched from one group to another. The result, 24 attacks in the greenchop-fed group and 7 among those on silage. When greenchop was fed to all cows in the herd the following year, 54 attacks occurred in the 36 cows present.

And so it went on during 1957, 1958 and 1959. Differences in crops have caused variations from year to year, but the proportion of attacks among greenchop-fed cows was twice as high as among cows fed the legume-grass forage in other ways.

Mastitis can attack udders at any stage of lactation, but the cows under study seemed most sensitive to attack during re-breeding, a time of intense hormonal activity.

TOP CATTLE

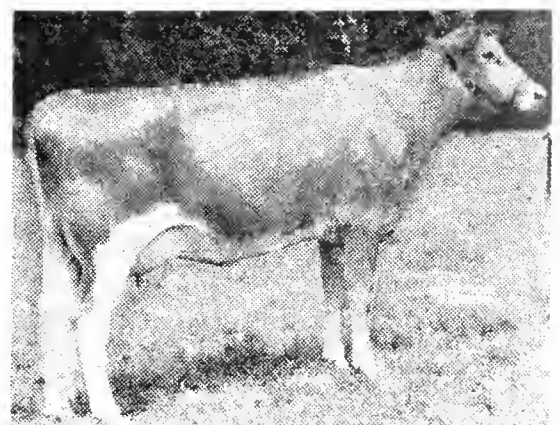
At NYABC Show



AYRSHIRE — Sunny Acres Classic's Queen, owned by Gerald Evans, Georgetown.



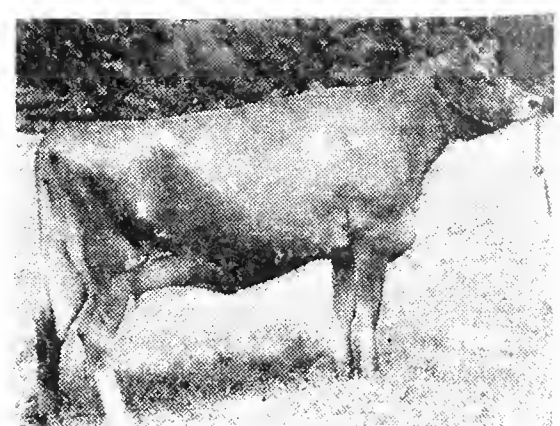
BROWN SWISS — Cornell Bob's Marda, owned by Cornell University, Ithaca.



GUERNSEY — East Koy Sandrale, owned by Walter Johnson, Silver Springs.



HOLSTEIN — Dry Hill Sally, owned by Porterdale Farms, Watertown, held by Ted Harrison.



JERSEY — Cornell Advancer Trickys, owned by Cornell University, Ithaca.

— American Agriculturist, October, 1963



1/2"

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Shown Actual Size

The 1/2" dairy pellet containing whole crimped grains and beet pulp

BEACON PROF-ETS . . . constitutes a brand new nutrition-packed 16% milking ration available now for your cows. In a significant nutritional advance Beacon now offers this new feed . . . including crimped whole grains and beet pulp . . . in a 1/2" pellet.

This, we sincerely believe, is the grain form of choice for now and the future.

Because . . .

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- When Beacon Prof-Ets break down in the rumen, particle size is similar to a mash type feed assuring normal digestive tract action.
- High feed digestibility and production of more normal proportions of volatile fatty acids is assured.
- Cows relish Beacon Prof-Ets . . . get more of the nutrition packed into each pound.
- You get greater returns for your feed dollar.



Beacon Division of **Textron** Cayuga, N. Y.

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Dairy Engineering

Management considerations for the dairyman who's looking ahead.

By O. C. FRENCH*

MANAGEMENT studies show that most dairymen having reasonable labor incomes have high producing herds and annually sell more than 300,000 lbs. of milk per man. It seems obvious that paths to lower milk production costs include high quality cows fed economically with high quality feed and with a minimum of labor.

Milk sold per man, of course, can be increased by milking more cows per man, but before a decision is made to increase the herd size, consideration should be given to getting better results with the present size of herd. Size of operation in itself is no guarantee of success.



O. C. French

Since feed is a very substantial portion of the total cost of milk production, perhaps there may be ways to reduce this in relation to cost per cwt. of milk. For example, there is good evidence that low moisture hay crop silage (haylage) can help dairymen reduce feed costs.

Haylage

Low moisture silage or haylage can be a high quality forage if it is handled correctly and it can supply the complete forage ration. Numerous feeding experiments have shown low moisture silage to be equal to barn dried hay. Because of this, plus experience of farmers who have been feeding haylage as the only roughage, there is increasing interest in this way of storing forage.

There are several reasons why haylage is gaining in acceptance:

- Drying time in the field is considerably less than for baling; risk from weather damage is lessened.
- Haylage is adapted to mechanized feeding.
- Bad odors and seepage losses are prevented.
- Fire hazards due to spontaneous heating are avoided.
- Harvesting equipment costs may be reduced since some haying equipment can be eliminated.
- Experience has shown that haylage can be made successfully in conventional silos.

Do It Right

There are several important procedures that **must** be followed to achieve success with low moisture silage:

- Cut forage at early stage of maturity.
- Wilt so that moisture content will average between 50-60 per cent.
- Chop material short ($\frac{1}{2}$ inch setting of chopper); keep knives and shear bar sharp and in proper adjustment.
- Silo doors should be sealed with a plastic sheet.

- A silage distributor should be used to obtain uniform distribution.
- Silo should be filled as rapidly as possible.
- Seal top of silage with plastic cover.
- Some trouble may be experienced with gumming of the forage blower and silo unloader. A small amount of water will free this gum.

Gas tight silos reduce some of the problems of storing haylage and research shows that a minimum of dry matter losses result from their use. However, total annual cost per ton of forage is important and studies show that good conventional silos will store haylage satisfactorily.

Machinery for Haylage

Conventional haying machinery consisting of mowers, conditioners, side rakes, field choppers, and wagons are usually used for making haylage. The conditioner should definitely be used in order that the

moisture content be reduced as quickly as possible. Covered wagons will keep field losses to a minimum.

The self-propelled windrower with conditioner is desirable if the operation is large enough to justify its use. Use of this machine eliminates raking and the associated field losses and stones mixed in the windrow which cause serious damage to a chopper. A good many northeastern farmers are now using the self-propelled windrower. Large choppers are desirable for making haylage because rapid filling of the silo is very important for proper preservation.

If a dairyman makes only haylage and corn silage, it is possible to make all of this forage with one chopper (with interchangeable corn and grass heads), one forage blower, one windrower, wagons, and tractors for chopper and wagons. The conventional mower, rake and baler could be eliminated.

Dairy Structures

Dairymen are seeking housing systems which will allow them to increase their size of operation efficiently and with minimum capital investment. No one system will satisfy all dairymen, of course, because of varying conditions and individual circumstances.

Although a loose housing system has held some apparent advantages for reducing labor requirement and provided flexibility for expansion, it

has not proved acceptable to very many dairymen. For our cold and snowy winters, cleaning paved feeding areas has been difficult; more bedding is required and this is becoming scarce and expensive; operators don't like to work in cold barns; it's not possible to feed individual cows on the basis of their production.

During the past two years there has been a flurry of interest in and construction of what is called the "free stall barn" which is a modification of the loose housing system. Its attraction stems from the fact that the space for resting area is decreased and less bedding is required. Further, the feeding area is enclosed; however, the barn is still a cold one and it's not possible to close it without insulating it to make it a warm system.

Manure removal must be done daily and because of a very minimum of bedding being used, it is almost in liquid form and difficult to handle with conventional equipment.

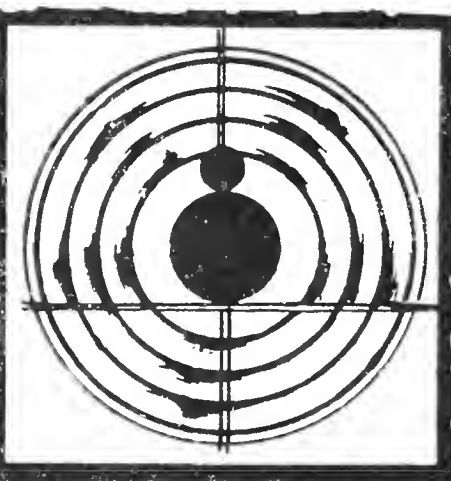
Stall barns are still favored by most dairymen, but there are some interesting trends developing — many new single story barns are being built. The "hay mow" is being relocated to ground level storage and more silage is being fed, which reduces the need for hay storage space.

(Continued on Page 23)



REDDY SAYS:

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Lack of fresh air in your dairy barn can cost you money! It can cause paint to peel, wood to rot, hay to spoil in the mow and it can contribute to respiratory diseases in your animals. An electric barn ventilation system removes excess moisture and circulates clean, fresh air throughout the barn. It's a simple and inexpensive, yet

effective way to keep your livestock and your workers healthier and more comfortable the year round.

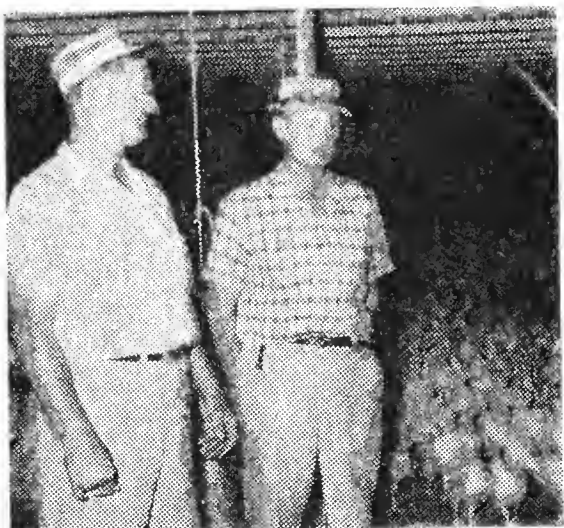
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NIAGARA MOHAWK

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*Head, Agricultural Engineering, Cornell University

PERSONAL FARM EXPERIENCE



Joe Nietupski (left) and his brother Wallace with some of their turkeys.

TURKEY GROWERS

We have been growing about 7,000 turkeys for twenty years. The three of us, including my brothers Wallace and Bert, also keep 85 head of stock, 53 of which are milkers. We did raise broilers, but low prices decided us to get out, and we will probably stay out. We are thinking of keeping some laying hens.

We buy day-old turkeys and keep them in a brooder house and on wire for three months, then they go on range. Turkeys are among the dumbest of all creatures, and a five foot fence around the range keeps them confined.

We sell during the holiday season. About 3,000 turkeys are contracted and sold live in Boston. Then we retail around 1,000 dressed, and the

balance are dressed and sold to stores in Springfield.

Housewives seem willing to pay a considerable premium for freshly-killed turkeys. In fact, we wouldn't be able to stay in business without that premium. One reason why frozen turkeys are less desirable is that they are usually frozen immediately after dressing. They should be left in a cooler for at least a day so they lose the animal heat before freezing.

Fall is a busy season for us. We have two men to kill turkeys and eight to ten women to dress them. We expect to stay in the turkey business. When we had a fire two years ago we built a new and better brooder house. — Joe Nietupski, Wilbraham, Mass.

LONG ISLAND POTATOES

We grew 50 acres of potatoes last season. Over the years, we figure on yields averaging 300 to 400 hundred-weight per acre.

Katahdins are the variety we prefer; Kennebecs used to do well, but wholesalers didn't like them and this variety doesn't store as well. Some of our production has gone directly aboard transatlantic liners for use in their kitchens.

We fertilize potatoes with 2,500 pounds of 6-12-6 per acre. Because of potential scab problems, we like to hold the pH of our soils about steady and not have to add lime. It's said that higher analysis fertilizers like 10-20-10 tend to make soils acid, so we stick to the lower analy-

sis material. That way, the soil pH remains steady, no lime is needed, and we don't run as much risk with the scab that thrives only when pH levels go up.

Our spray schedule is flexible, depending on the type of bug. We use at various times DDT, Sevin, Guthion, and Thiodan—the latter for aphids. By the way, we prefer the Thiodan wettable powder to the emulsion form. Maneb is used all season to control diseases. Vines are killed with a sodium arsenite solution about a week before digging begins. — Gustaf A. Johnson, East Northport, N. Y.

FORAGE PROGRAM

Under conditions here in Jefferson County, New York, my experience fails to back up the advice to keep manure off legumes. Maybe it's too cold here in the spring to make nitrogen available for early growth.



Bill Waldroff

Anyway, I have topdressed alfalfa with manure in the winter for several years with excellent results, usually on the second or third year's growth. I have one field of Dupuits alfalfa that's seven years old and has been manured three times. I have also topdressed in the spring with urea. Some say the nitrogen from urea doesn't become available fast enough in cold weather, but it seems to work fine for us.

I use superphosphate—but not in

the gutter. It's hard on gutter cleaners and spreaders, so I broadcast it with a grain drill.

Before the boys were big enough to help, I chopped dry hay and blew it into the barn. Later I bought a baler and a "kicker," then a mow drier and a mow conveyor. The cows get greenchop in summer, alfalfa, oats, etc. For some years I didn't raise corn for silage, but have decided to give it a try again.

—Bill Waldroff, LaFargeville, N. Y.

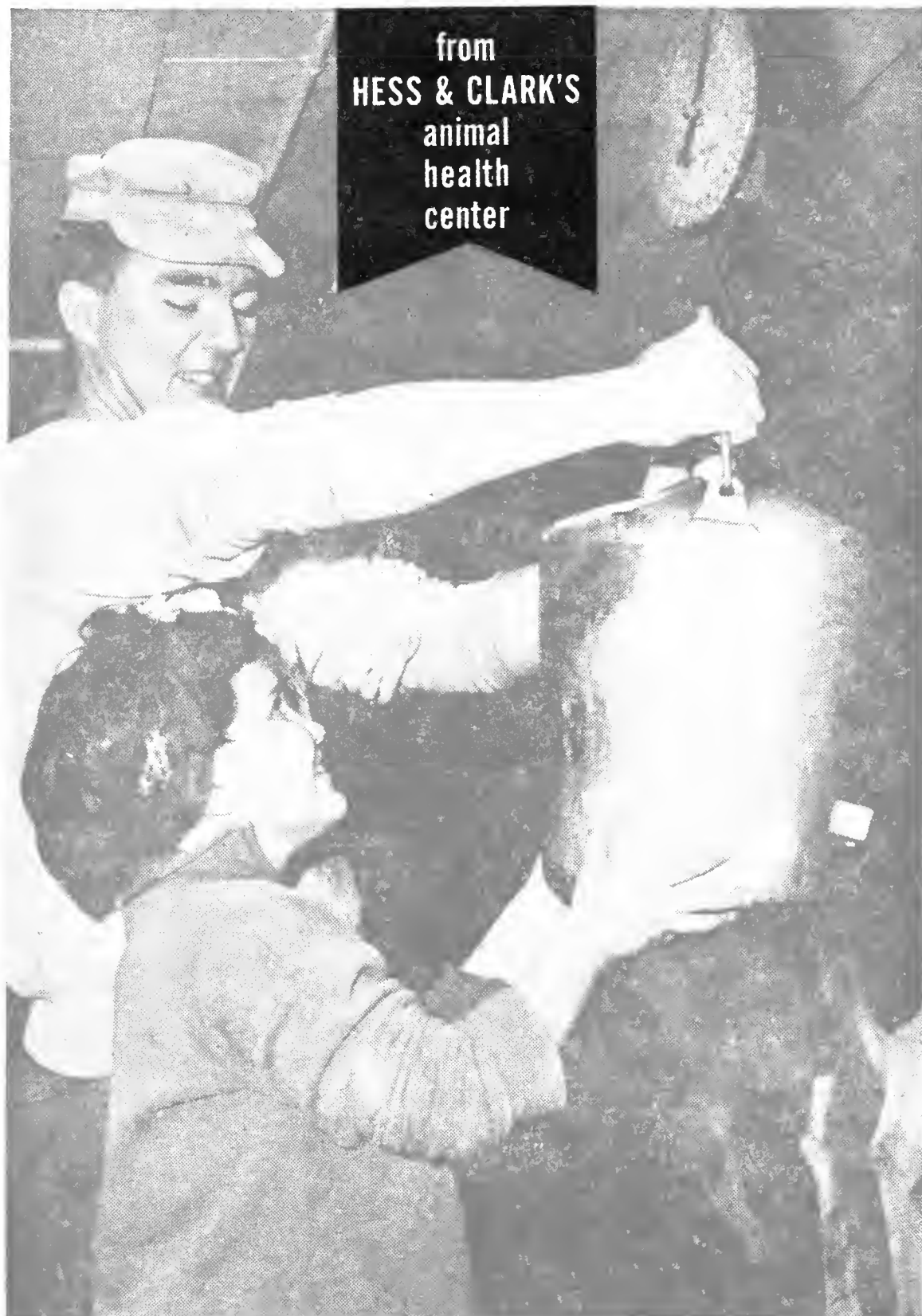
GROWING CABBAGE

This year we grew 24 acres of Danish cabbage and 3 acres for kraut. The seed was planted between the 20th of May and the first of June and transplants went out of the seed bed beginning the Fourth of July. Dieldrin is used in the seed bed to control cabbage maggot; there is no maggot problem in the field, of course, with late cabbage such as ours. Since we want storage cabbage, we wouldn't want to plant any earlier than this because somewhat immature heads keep better, and earlier planted cabbage would lose color in storage.

We use a 2-row transplanter that has a 4-man crew plus one man to drive tractor. We once used a starter fertilizer solution, but discovered that in a dry year we had problems with fertilizer injury, so now we use just water at transplanting time. However, we always put on a light irrigation water application the same day plants are set; we think this is very important because cabbage responds about as well as any crop to this sort of treatment.

No herbicide is used on cabbage;

(Continued on Opposite Page)



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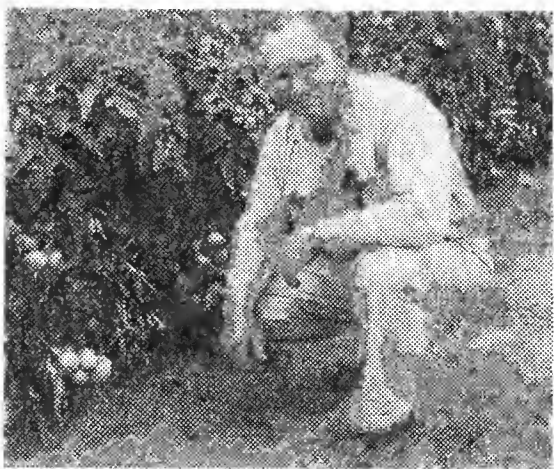
we use cultivators and also hand weed the field once. For worms we use endrin, and parathion is the "old reliable" for aphids. We're trying some systemic insecticides to take care of aphids that get inside the leaves and aren't touched by parathion. Manch takes care of mildew and blackspot. We're thinking of using some Thiodan for insect control because we can use it much closer to harvest than with many insecticides.

For harvest, we cut four rows and put them in one "windrow," then pick it up and put it into pallet boxes. Last year we stored about half our cabbages in pallet boxes holding a half ton each; the rest of the 500 tons went into regular type storage facilities.

We set six of these pallet boxes on a low trailer and then pick them off the wagon with a fork lift on the front of a farm tractor. We stack the boxes three high, but could easily go four high if we had the head room. The advantages of pallet box handling include less bruising of the heads, less labor required, and there is a smaller shrinkage and therefore better quality because of superior air movement around and through the boxes than would be the case in regular bulk storage.

The future of stored cabbage seems to have improved recently because of the prepackaged cole slaw and cabbage salads that are being sold in super markets. Stored cabbage works better for this than fresh cabbage, and this new development has also been opening up a new market for the large heads in contrast to the fresh market de-

mands for smaller heads. — James Colby, Spencerport, N. Y.



Fred Jeserski of Agawam, Mass.

VEGETABLE FARM

"I began selling vegetables on the Springfield market when I was fifteen years old," said Fred Jeserski of Agawam, Massachusetts. "Since then, marketing has changed tremendously. In fact, we wouldn't be able to stay in business if we hadn't changed our selling methods. Now we sell mostly to chain stores. I keep closely in touch with them, letting them know our acreage early in the season, and keeping them informed as the crops mature. At the same time I keep in touch with market conditions, though I wish more and faster information were available. Price is a matter of bargaining, and the more information I have, the better job I can do.

"We still sell some produce on the Springfield market, as well as a considerable volume to operators of roadside stands. One development that bothers me is the trend toward packaging on the farm. If I were sure of getting enough more money

to net a profit I wouldn't mind so much, though I feel that we are growers, not packers. But what I fear is that growers will be pressured into packing and still get about the same price."

Over the years Fred and his dad, who is still very active in the business, have gradually concentrated on fewer crops. Now they are growing 200 acres of sweet corn, 100 acres of cauliflower, and around 15 acres of tomatoes. Until recently they grew tobacco, but discontinued the crop and substituted tomatoes.

As is the case on all farms, management looms large in its effect on net profits. Dad Jeserski keeps his fingers on the labor force, which in the summer is made up of 18 men, and in the fall harvest season as many as 25 more.

Fred keeps in touch with new varieties, partly for better yield, partly to give the buyer what he wants. Then there is the problem of analyses and amounts of fertilizer.

"Incidentally," says Fred, "we always fertilize the field roadways. Next year they will be cropped."

Most vegetables are delivered to the buyer. A large truck and two refrigerated trailers are part of the equipment. With an operation of this size and complexity, management takes a lot of time. In fact, it is possible for a manager to lose more than he gains by working in the field.

"Until the marketing season comes," says Fred, "I do the dusting, spraying, and applying chemical weed killers. They are tricky operations — and mistakes can be costly. After that, my time is taken up by managing and selling."

—H.L.C.

NO PASTURE!

We have no pasture. The 30 cows get corn silage morning and night; greenchopped alfalfa, oats or corn once a day at noon in summer. I have a small acreage of high sugar corn that resists frosts and can be chopped into late October.

The cows seem to relish alfalfa the best, but production doesn't drop much, if any, when we change from one crop to another. The weather has a lot more effect. When it is real hot, production drops.



Everett Brown

We fertilize corn heavily—around a half ton of 15-10-10 per acre. We also cover most of the land with manure every year. The alfalfa weevil is getting bad, and I am thinking of buying hay instead of growing it.

This is a small farm and I rent some land, so if I bought hay I would need to rent less—or maybe none at all.—Everett Brown, Feeding Hills, Mass.

EDUCATION AND AGRICULTURE

This book, by Gould P. Colman, is a history of the New York State College of Agriculture at Cornell University. It traces the development of the institution from its humble beginnings to an internationally recognized center of agricultural research and teaching. It is available from the Mailing Room, Stone Hall, Cornell University, Ithaca, New York. The price is \$5.00.

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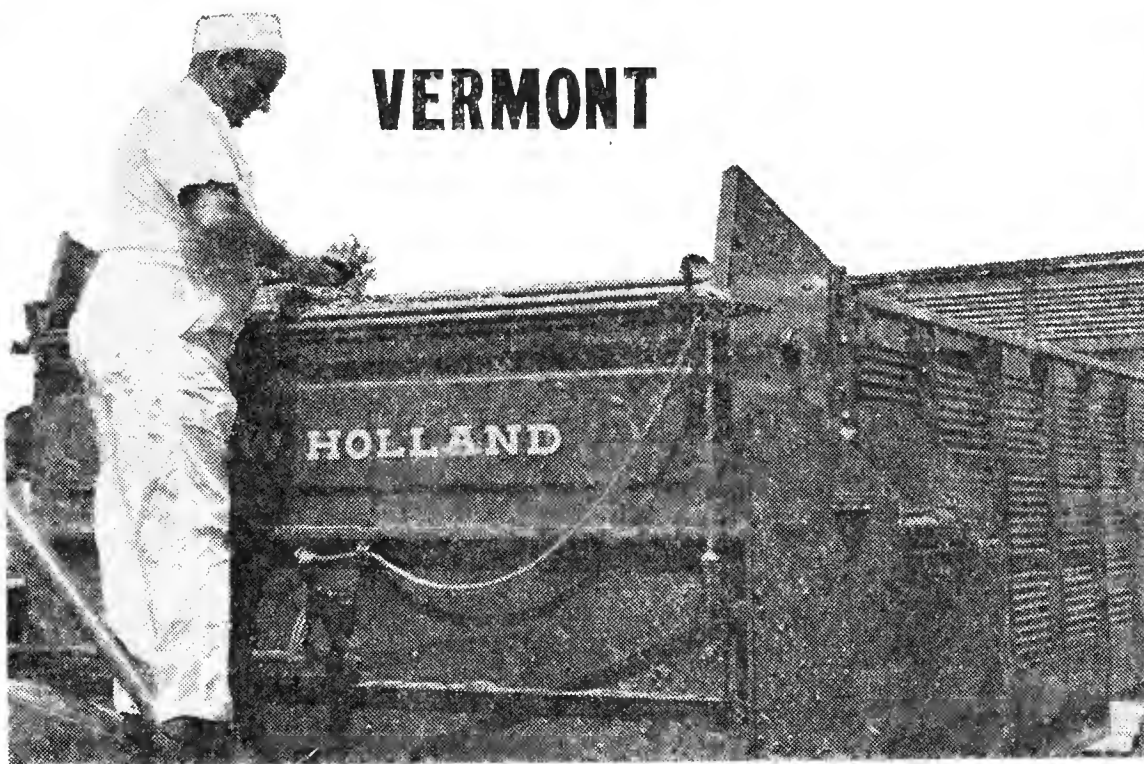
SHAVER MFG. CO.
Graettinger, Iowa

SUMMER FORAGE

(Continued from Page 14)

The first and third shift cows feed outside in the huge hottop exercise yard from the 300 foot feed bunk. The second shift cows stay in the

tieups, loosened only to enter the milking parlor, then back to the barn. The outside feed bunk divides the exercise yard.



Herdsman Wayne Ketchum of Fairdale Farms checks a load of haylage.

VERMONT

HAYLAGE FEEDING

Fairdale Farms, Inc., Bennington, Vermont, is an employee-owned enterprise specializing in the production and distribution of certified milk. The president and general manager is Robert T. Holden. Cows are bred for July, August and September milk production, a time when production usually drops due to heat, flies, drying pastures, etc. The milk production follows the same general pattern each year. For example, the combined 1962 figures for both barns are as follows: April, 111,000 lbs.; May, 125,000 lbs.; June 111,000 lbs.; July, 116,000 lbs. August, 160,000 lbs.; September, 182,000 lbs.

Speaking of summer forage feeding programs, Mr. Holden said, "They all work out well in winter on paper, but don't always work out so good in summer."

In 1950 Fairdale Farms entered the New England Green Pastures Program and, as Holden puts it: "worked up and tried to have the best pastures possible, rotated, clipped, and supplied with hay feeding racks." In 1962 Fairdale went onto a greenchop program. With low ceilings and pipelines in the conventional barns, side-unloading wagons were unable to enter, and a clean manure spreader was used, with greenchop being kicked off into the feed alley, two men pushing greenchop to each side.

Changed To Haylage

This year the farm started feeding haylage at a fifty percent moisture content, all the cows will clean up in outside bunks. Although outside feed bunks were once used only for extra summer cows, Holden used them all spring this year, liked them, and used them straight through the summer.

Milkers have some grazing in a ten-acre pasture other than the exercise yard. The feed bunks are in the exercise yard next to the barns. The milkers go out from 7 a.m. until 1 p.m., and again after the 4:30

p.m. milking. Then they are brought in the barn again at 4 a.m.

As the summer moves on and Fairdale Farms has more milkers than barn tieups, the surplus milkers are turned out to pasture. Others go into separate exercise yards during the morning barn cleanout. Pastured cows are brought in for milking while others are in the exercise yard. This program continues until early November, when the cattle population is cut to the capacity of the two barns.

Better System

As Holden enthusiastically puts it: "We're changing our roughage handling system from one that requires a lot of labor to one that requires less labor." He explains that baled hay required a lot of handling in loading and unloading, and his men vetoed a bale thrower because they felt that the hauls were too far and they couldn't get the load tonnage with random loading.

So this is being eliminated with haylage. Currently they are using a New Holland Crop Cruiser, a self-propelled wagon that unloads itself, dumping on a concrete slab beside a 130 foot conveyor located at the base of two 30' x 60' upright silos.

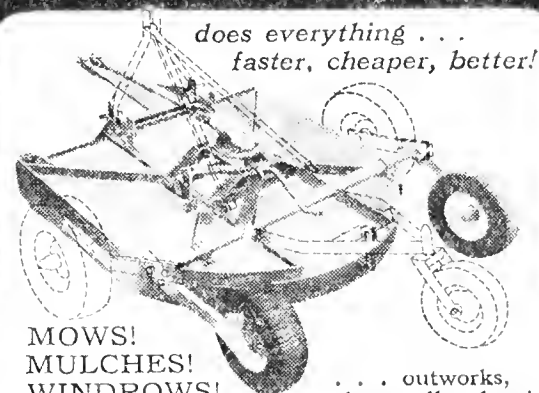
This new forage center, which was designed especially for Fairdale Farms by private agricultural engineer Carl F. Libby, Hampden, Massachusetts, is the start of a six silo unit. Libby also designed a plywood cottage-sized roof with expanding sides to top the silos. This cover not only encloses the silo tops but also contains cross conveyor and other equipment to load and unload any designed silo. The equipment is electrically controlled by one man on the ground, and one loader and unloader works all six silos.

When unloading silos, the haylage is blown down chutes into a self-unloading wagon. Arrangements will be made so a man can drive down the feed alleys in the barns for feeding.

COST CUTTINGEST!

BUSH-HOG

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ROTARY CUTTER



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MOWS!
MULCHES!
WINDROWS!
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FIRM FOOTING



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Barn Calcite

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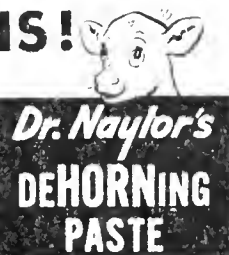
Good chicks from 8 PROVEN STRAINS

One is bound to be just right for your operation. For brown eggs: Hall-Harco Sex Links or our R. I. Reds. For white eggs: Arbor Acres Queens or Darby Strain Cross. For eggs and meat: Golden-Buff Hallcross or Silver Hallcross. For meat: Vantress or Peterson Cross. Fast, guaranteed-live delivery. You must be satisfied. Write for price list to 214 Cook Hill Road.

Hall Bros. Hatchery, Inc., Wallingford, Conn.

NO HORNS!

One application of Dr. Naylor's Dehorning Paste on horn button of calves, kids, lambs—and no horns will grow. No cutting, no bleeding. 4 oz. jar—\$1.00 at your dealer's, or mailed postpaid. H. W. NAYLOR CO., Morris 12 N.Y.



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10 No. Cherry St., Poughkeepsie, N.Y.

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News and Views from NEW YORK AND PENNSYLVANIA



BAKING CHAMPIONS



MRS. M. MILLER
Dutchess County

OUR LIST of Pomona winners in the American Agriculturist-New York State Grange Gingerbread Contest is now complete. Following are the Pomona baking champions not yet reported:

POMONA WINNERS

COUNTY	GRANGE	WINNER
Albany	Hiawatha	Mrs. Doris Ross
Chautauqua	Kennedy	Miss Linda Town
Chemung	Veteran	Mrs. Dennis Rodabaugh
Dutchess	Poughkeepsie	Mrs. Marjorie Miller
Greene	Echo	Miss Rosemary Smith
Lewis	Belfort	Mrs. Reuben Noffsier
Livingston	Linwood	Mrs. Lena Scott
Madison	Brookfield	Mrs. Gertrude Pierson
Montgomery	Florida	Mrs. Leslie Armer
Otsego	Hartwick	Mrs. Emma Chase
Putnam	Putnam Val.	Mrs. Alfred Barner
Westchester	Olive Branch	Mrs. John E. Bailey
Schuyler	Hedaville	Mrs. Elaine Johnson
Steuben	West Danby	Mrs. Janice Todd
Tompkins	Mohican	Mrs. Florence Dunn
Warren		

This list includes three more teenage winners—Linda Town, 17, of Chautauqua County, Rosemary Smith, 16, of Greene County, and Dennis Rodabaugh of Chemung County. Linda won over 22 other contestants! I am glad that our Grange young people have participated in the contest and that five of them have received top honors in their counties.

When State Grange meets at Elmira later this month, the 53 county winners will compete for valuable household equipment and grocery prizes awarded by American Agriculturist advertisers, also for cash prizes. The advertisers cooperating in the contest are Cooperative G.L.F. Exchange, Inc.; Magic Chef, Inc.; Monarch Range Co.; Penick & Ford Ltd., Inc., and The Tappan Stove Co.

Watch for the exciting story of the finals with pictures of the top winners and their prizes in our December issue!—A.C.

Self-Propelled Camera — Researchers from the USDA have a camera that propels itself through under-

ground drainage lines to locate clogged or damaged tile. The device is a 35 mm camera and electronic flash unit installed in a clear plastic tube about 3 inches in diameter. A reversible battery-operated motor and wheels move it through the lines. It is still on the experimental list, but it may not be long before farmers won't have to dig up entire drainage lines to find a leak.

New Plant — Ground was broken for a huge new bottling plant of the Dairymen's League on September 12. The new \$3 million plant is to be located at Goshen, N. Y. with a capacity of a quarter million quarts of milk in an eight-hour shift. It will replace three smaller, older plants.

ABS Sires — The American Breeders Service recently purchased a bull from Joe Romeo of Dryden, N. Y. The organization has also recently added to its stud two bulls from Pecora's Farm Dairy at West Hazleton, Pa.

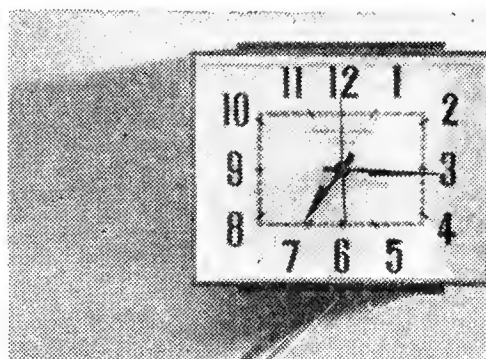
Of particular note is that Remer Jr., the bull purchased from Romeo, is a second generation proved sire. Also unusual is the fact that the Pecoras developed two outstanding bulls at the same time; ABS officials report such a double purchase extremely rare.

Chafer Beetle — A new insect pest, the European chafer beetle, has invaded Pennsylvania. It is also found in 10 New York counties and the New York City harbor area. It is considered potentially a greater economic menace than the Japanese beetle because, being nocturnal, it is more difficult to control. Grubs must be destroyed in the ground.

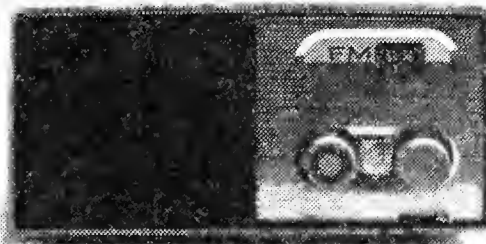
Feeder Sales — More than 2,000 calves are expected at the five feeder sales sponsored by the New York Beef Cattlemen's Association. Dates and locations are: October 22, Altamont; October 24, Dryden; October 26, Pike; October 30, Bath; November 2, Caledonia. Pike and Altamont sales will be held on their fairgrounds; the other three in Empire Livestock sale pavilions. All sales start at 1.00 p.m., and will be preceded by a short program by the Extension Service.



Julie DeTar, Holley, N. Y. with her grand champion 4-H steer at Caledonia. See story Page 43. In background is Gordon A. Berndt, Sibley, Lindsay & Curr representative.



Two Essential Harvesting Tools!!



Your clock and radio are two essential harvesting tools, from the day the first field of early-cut hay is mowed in unpredictable May, through the day the last field of late-maturing corn for grain is picked in blustery December. And that same handy harvest help is at your finger tips for every crop from Apples to Zinnias.

Your best radio guide to good harvesting weather is WEATHER ROUNDUP at 6:25 and 7:15 A.M.; 12:15 and 6:15 P.M., over these stations.

FM STATIONS

Auburn	WMBO-FM	96.1 mc.
Binghamton	WKOP-FM	99.1 mc.
Bristol Center-Rochester	WMIV-FM	95.1 mc.
Cherry Valley-Albany	WJIV-FM	101.9 mc.
DeRuyter-Syracuse	WOIV-FM	105.1 mc.
Hornell	WWHG-FM	105.3 mc.
Ithaca-Elmira	WEIV-FM	103.7 mc.
Jamestown	WJTN-FM	93.3 mc.
Niagara Falls-Buffalo	WHLD-FM	98.5 mc.
Olean	WHDL-FM	95.7 mc.
Wethersfield-Buffalo	WBIV-FM	107.7 mc.

AM STATIONS

Auburn	WMBO	1340 kc.	Olean	WHDL	1450 kc.
Binghamton	WKOP	1360 kc.	Remsen	WREM	1480 kc.
Boonville	WBRV	900 kc.	Rochester	WROC	1280 kc.
Dunkirk	WDOE	1410 kc.	Salamanca	WGGO	1590 kc.
Elmira	WENY	1230 kc.	Saratoga		
Glens Falls	WSET	1410 kc.	Springs	WSPN	900 kc.
Gloversville	WENT	1340 kc.	Sayre, Pa.	WATS	960 kc.
Hornell	WWHG	1320 kc.	Schenectady	WGY	810 kc.
Ithaca	WTKO	1470 kc.	Syracuse	WHEN	620 kc.
Jamestown	WJTN	1240 kc.	Syracuse	WOLF	1490 kc.
Niagara Falls	WHLD	1270 kc.	Utica	WBVM	1550 kc.
			Walton	WDLA	1270 kc.

Northeast Radio Network

Ithaca, New York

Dairyman Leon Koperczak Says:

"COOPERATIVES BEST WORKING TOOLS!"

After a long day of combining for a neighbor and getting in his own second cutting hay, past Grange master Leon Koperczak is on his way to a Grange picnic.



"Cooperatives are the best working tools we dairymen have," says Leon E. Koperczak of Savona. "When we use them right, we protect our markets and our income. Every dairyman should belong to a milk cooperative like those we have in the Bargaining Agency."

Mr. Koperczak practices what he preaches. For 12 years this owner of a 40 milking cow Holstein herd has been a director of the Campbell Milk Producers Cooperative, is now president.

You too will find benefits in cooperative action when you belong to a cooperative which is a part of



**METROPOLITAN COOPERATIVE
MILK PRODUCERS
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MOVE AHEAD with a Cooperative Association of Milk Producers — over 80 cooperatives — united for improved milk marketing.

BURN WOOD THE MODERN WAY

with the amazing, work saving

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DOWN-DRAFT WOOD BURNING HEATER

with a thermostatic control

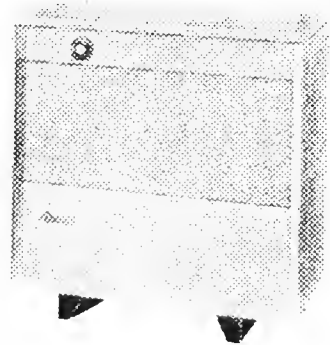


Over a half a million families from all over the continent have discovered Ashley, the heater that has revolutionized wood as a heating fuel. They get more heat with less fuel than was ever thought possible. They get controlled, even heat for up to 6 rooms 24 hours a day. They enjoy fuel loads that last up to 12 hours even in the coldest weather. Why not join them and be a satisfied Ashley owner yourself? See your Ashley dealer or write us now for details.

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4 economy models and 4 beautiful cabinet models to choose from. Shown is our C-60 cabinet model that heats up to 6 rooms with constant, controlled heat.



ask for Ashley, the leader! burns all types of wood!

NEW YORK STATE BEEF FEEDER CALF SALES

Oct. 22 at Altamont, Fairgrounds

Oct. 24 at Dryden, Empire Livestock Market

Oct. 26 at Pike, Fairgrounds

Oct. 30 at Bath, Empire Livestock Market

Nov. 2 at Caledonia, Empire Livestock Market

All Sales 1:00 P.M.—Calves graded—Sold in uniform lots—by Sex—Grade—Weight

— For More Information —

WILLIAM BROWN — — — East Concord, New York

New York Exposition Winners

AYRSHIRE

Females:

Senior and Grand Champion—Brisklea Tilda Rosealia, Brisklea Farm, Ghent, N. Y.

Reserve Grand Champion — Sunny Acres Classic's Queen, Sunny Acres Farm, Georgetown, N. Y.

Junior Champion — Morning Glory Silver Bell, Dennis Griffin, Burke, N. Y.

Bulls:

Senior and Grand Champion—Lippitt Up Diek, Village Brook Farm, South Onondaga, Syracuse, N. Y.

Junior and Reserve Grand Champion — Jackson Hill Shelly, Atherton Family, Greenwood, N. Y.

BROWN SWISS

Females:

Senior and Grand Champion — C. B. Konnie, C. B. Farm, Litchfield, Conn.

Reserve Grand Champion—Vine Valley Design's Pauline, Vine Valley Farm, Rushville, N. Y.

Junior Champion—Bryn Coron D. J.'s Gretchen, Bell-Son Farm, Howes Cave, N. Y.

Bulls:

Senior and Grand Champion — Lee's Hill Koalin M. C. B. Farm, Litchfield, Connecticut.

Junior and Reserve Grand Champion — Welcome In Dorian, Arthur H. & Arthur Beedham, Jr. Bergen, N. Y.



GUERNSEY

Females:

Senior and Grand Champion — McDonald Farms Bright Daisy, Cornell University, McDonald Farms, Cortland, N. Y.

Reserve Grand Champion—East Koy Sandra Lee, Willow Run Farm, Silver Springs, N. Y.

Junior Champion — McDonald Farms J. V. Evangeline, Cornell University, McDonald Farms, Cortland, N. Y.

Bulls:

Senior and Grand Champion—Rogers Farm Pericle, Rogers Farm, Randolph, N. Y.

Reserve Grand Champion — High Meadows Corrector High Meadows Farm, LaFayette, N. Y.

Junior Champion — McDonald Farms J. V. Frederick, Cornell University and McDonald Farms, Cortland, N. Y.

HOLSTEIN

Females:

Senior and Grand Champion — Maroy Model Abbekerk, Tara Hills Farm, Millbrook, N. Y.

Reserve Grand Champion — Bayfield Ty Grawin Johanna, Freebaer Farm, Ft. Plain, N. Y.

Junior Champion—Collins-Crest Ivanhoe Triune J, Collins-Crest Farm, Malone, N. Y.

Bulls:

Senior and Grand Champion—Future Hope Blacky Leader, Weller Farms, Lowville, N. Y.

Reserve Grand Champion — Smitholm Reflection Luke, William D. Hughes, Smith Brothers & Dale Stoker, Brooktondale, N. Y.

Junior Champion — Bluegill Pontiac ABC, Bluegill Farm, Bath, N. Y.

MILKING SHORTHORN

Females:

Senior and Grand Champion—White's Rena Louise, Westover Farm, Sherburne, N. Y.

Reserve Grand Champion — Marbert Lena Lou 2d, Marbert Farm, Bergen, N. Y.

Junior Champion—White's Red Floss, J.M. & H.M. White, Marathon, N. Y.

Bulls:

Senior and Grand Champion—White's Adventurer, J.M. & H.M. White, Marathon, N. Y.

Junior and Reserve Grand Champion — White's Red Baron, J.M. & H.M. White, Marathon, N. Y.

JERSEY

Females:

Senior and Grand Champion—Golden Royal Mascot, Vacluse Farm, Newport, R. I.

Reserve Grand Champion—Gold Ring Marie, Tynor Farm, LaGrangeville, N. Y.

Junior Champion—Teffia's Royal Dixie, Vacluse Farm, Newport, R. I.

Bulls:

Senior and Grand Champion — Sunbeam Favorite Pinnacle, Sunbeam Farms & Meadowhurst Jersey, North Bangor, N. Y.

Junior and Reserve Grand Champion — Jester Basil Julian Vacluse Farm, Newport, R. I.

ABERDEEN ANGUS

Females:

Senior and Grand Champion — Gibbet Hill Blackwood Lady 7, Gibbet Hill Farm, Groton, Mass.

Reserve Grand Champion — Mahrabo Anoka Barbara B.J.S., Mahrabo Farms, Mahway, N. J.

Junior Champion — Ballots Maid of Meadow Lane Meadow Lane Farm, North Salem, N. Y.

Bulls:

Senior and Grand Champion—Meadow Lane Monarch, Meadow Lane Farm, Bent Lee Farm, Bon View Farm, (co-owners), North Salem, N. Y.

Reserve Grand Champion — Meadow Lane Mystic, Meadow Lane Farm & Henry Walser & Sons, North Salem, N. Y.

Junior Champion — Meadow Lane Merit, Meadow Lane Farm, North Salem, N. Y.

STEERS

Champion Angus—Cornell's Lad, Cornell University, Ithaca, N. Y.

Champion Hereford — Brad, William Welcher, Newark, N. Y.

Champion Shorthorn—Nuggett, Glen Cove Farm, Windsor, N. Y.

HEREFORD

Females:

Champion — W.S.F. Miss Crusty 291, Wehle Stock Farm, Scottsville, N. Y.

Reserve Champion—C U Mischief Miss 32, Cornell University, Ithaca, N. Y.

Bulls:

Grand Champion — Mischief Corneller 15, Cornell University, Ithaca, N. Y.

Reserve Champion—W S F Shadoneer 382, Wehle Stock Farm, Scottsville, N. Y.

SHORTHORNS

Females:

Senior and Grand Champion — B.R. Queen, Sangamon Farms, Dewittville, N. Y.

Reserve Grand Champion—Cinderella Jean L., Glen Cove Farms, Windsor, N. Y.

Junior Champion — Sangamon Ramsden, Sangamon Farms, Dewittville, N. Y.

Bulls:

Senior and Grand Champion — Buckway Cove Robin, Glen Cove Farm, Windsor, N. Y.

Reserve Grand Champion—Sangamon White Knight, Sangamon Farms, Dewittville, N. Y.

Junior Champion — Glen Cove Red Robin, Shaker Farm, Windsor, N. Y.

SHEEP

Exhibitors of champion rams in the various breeds were:

Cheviot — S. Dewitt Stewart, Bath, N. Y.; Columbia—Harry L. Clauss, Canandaigua, N. Y.; Corriedale — Lawrence T. Barber, Leroy, N. Y.; Dorset—Twin Pine Farm, Nichols, N. Y.; Hampshire —Kenneth L. Moore, Jr., Nichols, N. Y.; Merino—J. W. Cook & Sons, Trumansburg, N. Y.; Montadale — Stanley H. Allgire Family, Galion, Ohio; Oxford—Lawrence L. Davey, Marcellus, N. Y.; Rambouillet — Harry Clauss, Holcomb, N. Y.; Shropshire—Kenneth T. Moore, Nichols, N. Y.; Southdown—W. G. Carpenter & Sons, Germantown, Md.; Suffolk—Mrs. Ford A. Cooper, Reynoldsville, Pa.; Tunis—Rita Ann Cook, Trumansburg, N. Y.

Exhibitors of champion ewes in the various breeds were:

Cheviot — S. Dewitt Stewart, Bath, N. Y.; Columbia—W. Van V. Warren, West Dummerston, Vermont; Corriedale — Lawrence T. Barber, LeRoy, N. Y.; Dorset—M. C. Whitney, Susquehanna, Penna.; Hampshire—Kenneth L. Moore, Jr., Nichols, N. Y.; Merino — J. W. Cook & Sons, Trumansburg, N. Y.; Montadale—Dr. F. E. Lindglom & Son, Jamestown, N. Y.; Oxford—Jane McIntyre, Jordan, N. Y.; Rambouillet—Kenneth L. Moore, Nichols, N. Y.; Shropshire—Kenneth T. Moore, Nichols, N. Y.; Southdown—J. W. Cook & Sons, Trumansburg, N. Y.

(Continued on Page 24)

— American Agriculturist, October, 1963

WONDERFUL WINTER TOUR

Jan. 18 — Feb. 9

WHEN JANUARY comes, what could be nicer than to leave snow and ice behind and travel south to the sun with a happy American Agriculturist tour party? On January 18 our Southwest Tour party will be on its way to New Orleans — the start of a wonderful three weeks' vacation that will take us to some of the most fascinating places in the Southwest and California.

New Orleans will be our first stop. Then will come Texas' biggest city, Houston; the Carlsbad Caverns; the awe-inspiring Grand Canyon; Phoenix; Hoover Dam, Las Vegas, Death Valley; southern California, including Riverside, Capistrano, Disneyland and Knott's Berry Farm; Hollywood with a visit to Forest Lawn and lunch at Farmers' Market; Monterey and the exciting city of San Francisco — all these thrilling sights are included in this American Agriculturist tour.

This is an all-expense tour with everything included in the price of your ticket. You'll have no travel worries on this tour. Our friendly and competent tour escort takes care of everything. This is your opportunity to take a delightful, care-free vacation with the nicest people in the world — an American Agriculturist tour party. Every day will add to the rich experiences shared with one another, and you'll return with wonderful memories of the Southwest and California — memories you'll never forget!

Caribbean Cruise

Next month we will tell you about our winter Caribbean Cruise from Port Everglades, Florida, with shore excursions at St. Thomas, Barbados, Martinique, Aruba, Cristobal, and Kingston. In connection with this cruise there will also be an optional 8-day tour of Florida for those wishing it.

We'll be glad to send you a free copy of the itinerary for either or both of these winter holidays, with full details including costs. Just fill out the coupon below and mail it to us today. Don't wait, as these are two of our most popular tours, and space on both is limited.

A. James Hall
American Agriculturist
Box 367-T
Ithaca, New York

Please send me, without obligation on my part, the following tour itineraries:

Southwest Holiday Tour _____
Caribbean Cruise _____

Name _____

Address _____

(Please print)

DAIRY ENGINEERING

(Continued from Page 17)

A few new stall barns are being built with face-in stall arrangements. This permits using a self-unloading wagon for feeding silage. An occasional barn has been equipped with mechanical silage feeders over the manger. This is expensive and occupies a large amount of overhead space. It seems much more logical to develop a self-propelled power-unloading silage cart capable of holding from 1,000 to 1,500 pounds of silage.

Such equipment will likely be available within the next year or two. If and when such equipment is available, it seems safe to predict that in-the-barn feeding will be more practical than yard feeding for dairy cows. No additional paving will be required; fly control is easier, and manure handling less difficult.

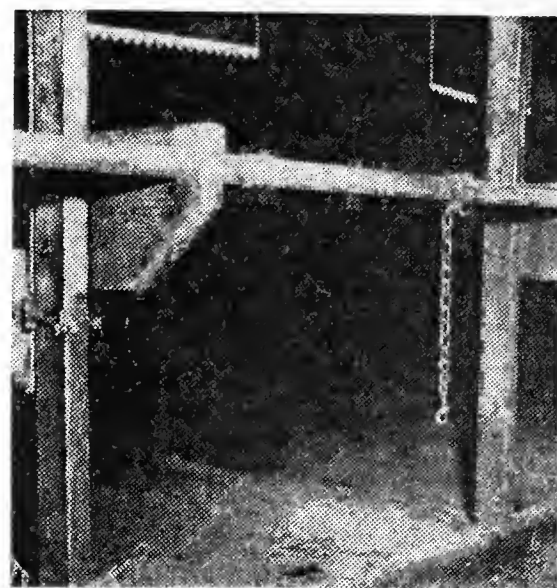
Whether to plan for a milking parlor or utilize a pipeline milker in the barn is another decision being wrestled by dairymen. First cost alone isn't the only consideration — ease and quality of milking is also important. Further, the task of cleaning the milking equipment is less difficult in a milking parlor as compared to an around-the-barn pipeline.

For a milking parlor with a stall barn to be most successful, a holding area should be provided for not less than 16 cows. From 18-20 sq. ft. per cow should be provided. A double-four parlor works well for one milker.

For a milking parlor and stall barn system to be efficient, one man is needed to release and direct cows to the holding area; feed and re-tie those returned from the parlor and clean stalls and alleyways. For this reason, the operation using this system should be large enough to efficiently employ two men.

Future Outlook

To me it appears fairly certain that a trend is underway toward a dairy housing system consisting of a well insulated and ventilated single story stall barn with a milking parlor in connection. Forage as silage for the complete roughage ration will become common. Year-round housing of cows will increase with all the feeding being done in the barn. More new barns will be four-row arrangements, and milking parlors will continue to increase in popularity, especially for the two-man operation.



Here's a tie stall arrangement on the farm of Robert Weir, Schaghticoke, New York. The barn, built only recently to replace one destroyed by fire, is 36' x 257', and has 100 stalls. The tie rail is 1 1/4" pipe; regular 3/16" chain is fastened to it with a U bolt. Note electric cow trainers that Bob says "take the drudgery out of keeping cows clean."

* * *

Two dairies have used the heat taken from the milk by means of an exchanger to heat dairy wash water and reduced the cost of water heating by about 50%, and that of cooling milk by about 10%. — C. N. Turner, Cornell University



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Specialist in EVERYDAY travel!



SERVING EVERY
MAJOR MARKET IN

New York State

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New England

plus TORONTO, Canada

For information and reservations — See
MOHAWK in the "Yellow Pages"

Bleed 'Em To Death!



TWENTY New York and nineteen New England county agents have just completed their part in a nationwide rodent control testing program sponsored by the Wisconsin Alumni Research Foundation, pioneers of anticoagulant rodenticides that cause rats and mice to die from internal bleeding. The New York tests were conducted on 32 different sites against rats and house mice for the purpose of evaluating a new type of rat and mouse

killer scheduled for introduction in the fall of 1963. In New England, tests were made at 31 different sites in each of the 6 states in the region.

Tough Problems

To make the tests especially rigorous, the county agents and their cooperators were asked to use the new pesticide, wherever possible, against rodent infestations that had previously been "hard to control" by other means.

A tabulation of reports submitted by the northeastern agents shows the following results:

Degree of Control	No. of tests on Rats	Mice
Complete	19	14
Satisfactory	20	9
Poor	0	1
Total	39	24

The new rodenticide was developed to overcome the serious problem caused by certain rats and mice that are able to survive ordinary anticoagulants. In their investigations, Wisconsin scientists worked on the theory that the digestive bacteria in these problem rodents, especially in mice, produce large amounts of vitamin K, the antidote for anticoagulants. To overcome this effect, they combined the anticoagulant warfarin with an antibacterial agent, sulfaquinoxaline. This inhibited the intestinal bacteria and reduced vitamin K production.

In the laboratory, the new rodenticide (formulated by numerous

companies under the trademark Prolin) controlled rodents more quickly and more thoroughly than previous anticoagulants. For example, after 14 days on test, 100 percent of the hard-to-kill wild house mice fed the warfarin plus sulfaquinoxaline bait had died. In the same period of time, 19 percent of the mice fed an identical bait without sulfaquinoxaline were still alive. This improved performance was accomplished without increasing the single dose hazard to humans, pets or livestock.

Rodent control experts consider the results on mice particularly significant because house mice are the most numerous, troublesome, and difficult to control of the major rodent pests. The fact that county agents over the nation reported complete control of mice in 47 percent of the mouse infestations and satisfactory control in 51 percent establishes a new high standard of effectiveness. Extension Entomologist W. C. Nettles, Clemson College, South Carolina, calls the invention "A scientific breakthrough in rat and mouse control. . . ."

Rats and mice are bearers of deadly diseases affecting humans and livestock. They eat and contaminate enough food in the United States alone to feed 10,000,000 people. They are responsible for an estimated \$2,000,000,000 loss each year in the United States. It is estimated that each rat costs the farmer \$22 per year. One authority has said that the average rodent infestation on a farm in his state eats and destroys more than the taxes on the farm.



BIG PRODUCTION PLUS!

Governess Lime Hollow Triune, the CURTiSS-Sired "Complete Cow" above was Grand Champion at the 1963 Cortland (N.Y.) Black and White Show. She's classified "Excellent" and produced 17,164 lbs. milk 4.0% 684 lbs. fat (2X) as a two-year-old. She has 14,727 lbs. milk and 605 lbs. fat in the first 205 days of her current lactation and is still going strong at Lime Hollow Farms in Cortland.

..... THAT'S WHY CURTiSS ACCOUNTS FOR 90% OF THE TOTAL A.I. INCREASE IN NEW YORK AND NEW ENGLAND!

Daughters of CURTiSS Sires really milk!

They add dollars to your milk check — and that's only the beginning of your extra profits when you breed your herd the CURTiSS "Complete Cow" way!

Why? Because "Complete Cow" means exactly what it says! It's a PRODUCTION PLUS program—every inch of the way from broad, hungry muzzle to high, wide, rear udder attachment!

And every CURTiSS sire is backed by "Com-

plete Cow" families—exceptionally high-producing female lines also noted for long milking life, regular reproduction, herd-building offspring and the sound, powerful type that means less fuss and bother on the farm . . . blue ribbons at the shows . . . top dollar at the sales.

CURTiSS offers the world's widest selection of BOTH plus-proven sires and young bulls of enormous pedigree promise in ALL FIVE dairy breeds.

Yes, you can have all this and big production too! That's why the big swing is to CURTiSS . . . why it will pay you to write Danny Weaver, Box 97, Little York, New York for full details on the CURTiSS "Complete Cow" Program. Better still, ask your local CURTiSS man!

FIVE DAIRY BREEDS

EIGHT BEEF BREEDS

ONE DUAL PURPOSE

CURTiSS BREEDING SERVICE, INC.

CURTiSS FARM — CARY, ILLINOIS • Otto Schnering, Founder • Phone MERCURY 9-2041



GOOFED AGAIN!

On Page 28 of our September issue is a quotation reading: "While there is no genetic antagonism between good type and high production, selection of type alone will have little direct influence on over-all type rating."

This should have read: "While there is no genetic antagonism between good type and high production, selection for type alone will have little direct influence on production, and, conversely, selection for production alone will have little direct influence on over-all type rating."

EXPOSITION WINNERS

(Continued from Page 22)

Trumansburg, N. Y.; Suffolk—William Fitzpatrick, Wayland, N. Y.; Tunis — S. Dewitt Stewart, Bath, N. Y.

Owner of Champion wether was James Van Vleet, Interlaken, N. Y.; Grand Champion Fleece of Show was exhibited by Fred H. Zautner, Brewerton, N. Y.



SWINE

Championship ribbons in the swine breeds were awarded as follows:

Berkshire — Boar and Sow — Richard Crye, Avon, N. Y.

Yorkshire — Boar and Sow — Arthur Gabrielse, Lyons, N. Y.

Hampshire — Boar—Ralph Bliet, Williamson, N. Y.; Sow — Ford Cooper, Reynoldsville, Pa.

Duroc—Boar and Sow—Happy Acres Farm, Waterloo, N. Y.

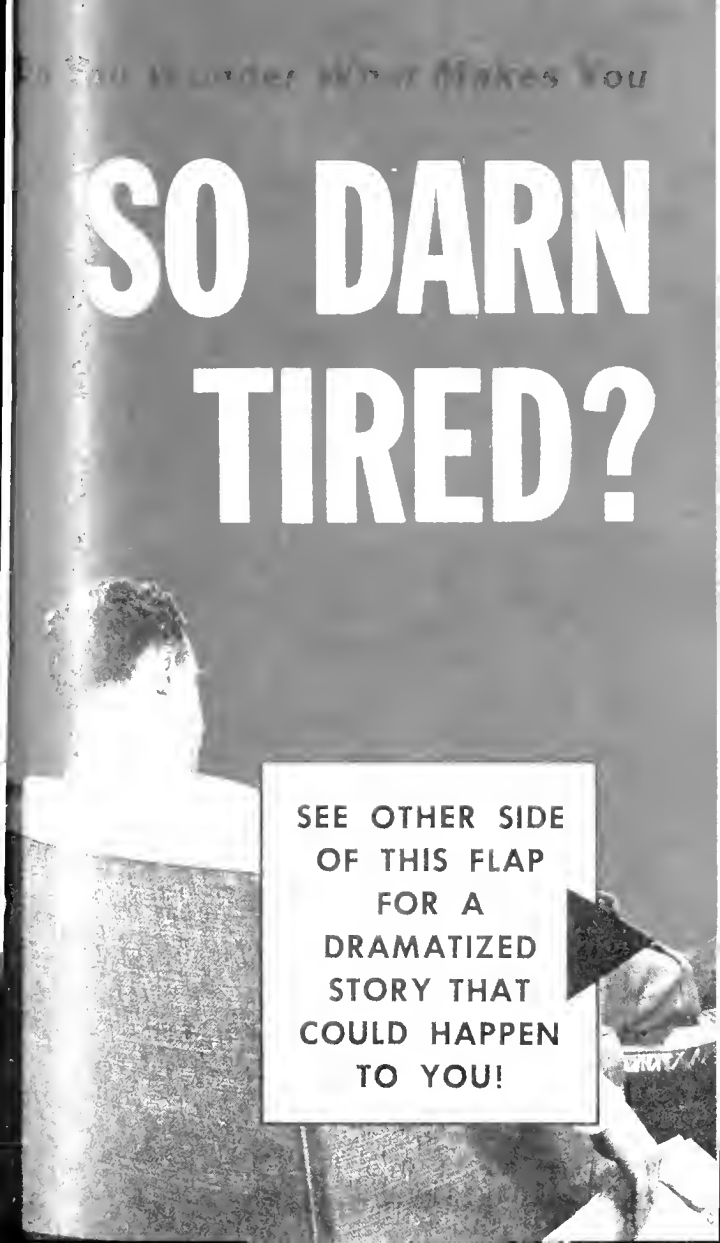
Landrace — Boar and Sow — R. W. Bratton, Dryden, N. Y.

Poland China — Boar and Sow — Clair Hartman, Gratz, Pa.

Champion Barrow — David Moore, Bergen, N. Y.

Do You Wonder What It Makes You

SO DARN TIRED?



SEE OTHER SIDE
OF THIS FLAP
FOR A
DRAMATIZED
STORY THAT
COULD HAPPEN
TO YOU!

Do You Wonder What Makes You **SO DARN TIRED?**

I USED to feel weak and run-down from the moment I woke up in the morning to the time I tumbled into bed at night. I found myself getting upset at almost everything. I was "touchy," cross and irritable with the children. I'd start arguments with my wife over the smallest things. I finally decided to see our family doctor.

After examining me, the doctor explained that my condition was due to a lack of important vitamins in my diet. He recommended that I take a good food supplement daily.

I sent away for a trial supply of Life Nutrition Full-Potency capsules that I had seen advertised. Soon my energy came back, and now I feel like a new man! If you feel tired, nervous and miserable, why not send for your trial supply today?

**FOR A SENSATIONAL
FREE Full-Potency Capsule OFFER
AND REPLY CERTIFICATE
see the LIFE NUTRITION AD
ON ATTACHED PAGE**

liquid saver!

new hydraulic endgate keeps manure inside the spreader until you get to the fields. Another bold new idea from New Idea.

Up to now the best way to keep from losing valuable manure liquids in the yard or on your way to the fields was with a hand-operated endgate. It did the job okay, but it was hard work and time-consuming. Today New Idea offers a unique hydraulic endgate operated from the tractor seat as optional equipment on the Single Beater spreaders. With it, the low-cost Single Beater takes on a new dimension in versatility and performance.

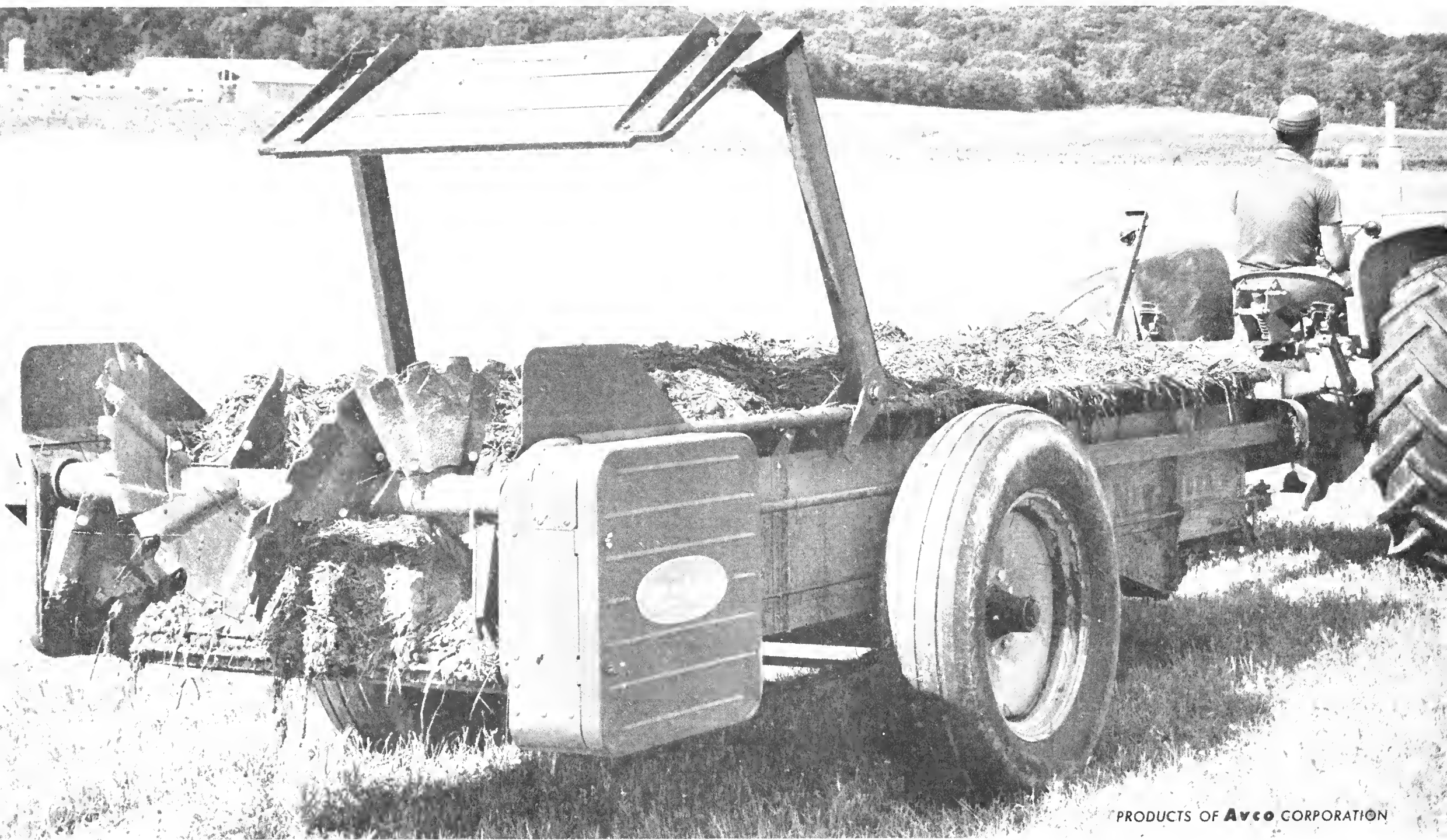
New Idea dealers offer the Single Beater in two sizes: 125-bushel and the new 155-bushel. Here is New Idea quality in a low-cost, all-weather spreader. Water-repellent Penta treated, clear yellow pine box. Five feed rates plus clean out and neutral. Wide choice of wheels and tires; and the New Idea full year written guarantee.

Visit your New Idea dealer soon. See the bold new ideas from New Idea, Coldwater, Ohio . . .

where bold new ideas pay off for profit-minded farmers

the sign of a
Good Dealer

NEW IDEA



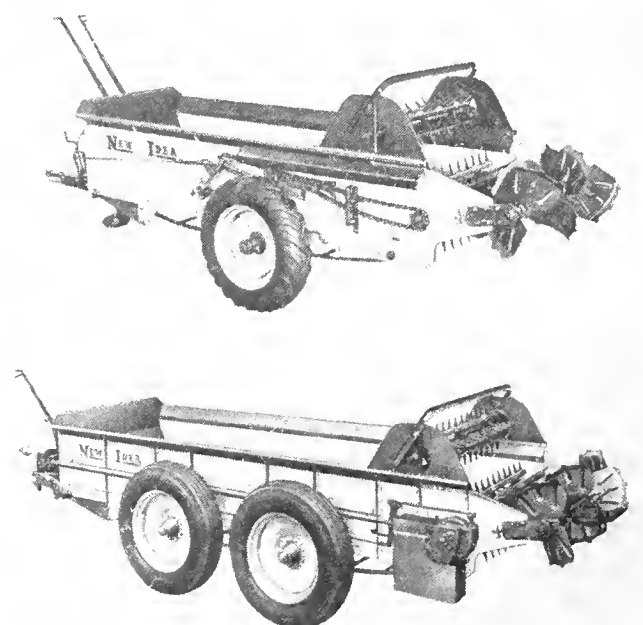
PRODUCTS OF **Avco** CORPORATION

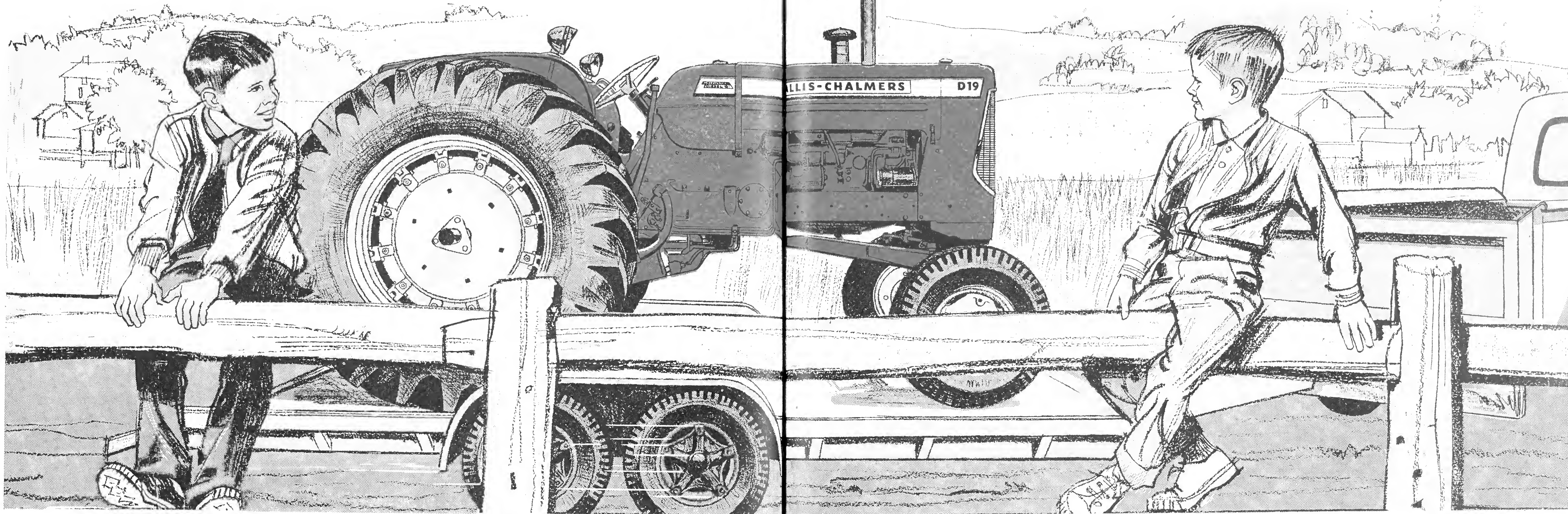
UNIFORM SPREAD PATTERN. Special paddles have better "slicing" action; spread manure in wider pattern than other single beater spreaders. You wouldn't throw bags of fertilizer on the field, so why dump chunks of manure on tender plants? Hydraulic endgate optional.

MOST-TALKED-ABOUT spreader, the New Idea Flail. 130 and 160-bushel. Spreads in any weather—frozen, hard-packed or wet and sloppy manure. Undershot principle uses weighted, sharpened, free-swinging steel hammers. Five spread rates, from light top dressing to heavy spreading.

GROUND DRIVE SPREADERS give you finer shredding, wider spreading at lowest cost. In 70, 75 (4-wheel), or 90-bushel sizes.

PTO SPREADERS—Famous widespread Cylinder/Paddle: 125, 145 and 180-bushel sizes. Full year guarantee on all New Idea spreaders.





"Boy, you sure do see a lot of these big orange tractors goin' by around here."

"Maybe it's like dad says, he's seen more Allis-Chalmers around here this year than ever. I wonder why..."

You're both right. There are more and more big orange tractors being made . . . and bought.

We think the reason for it is that people like your dad think well of Allis-Chalmers tractors and what they can do. They have what people generally call a good reputation.

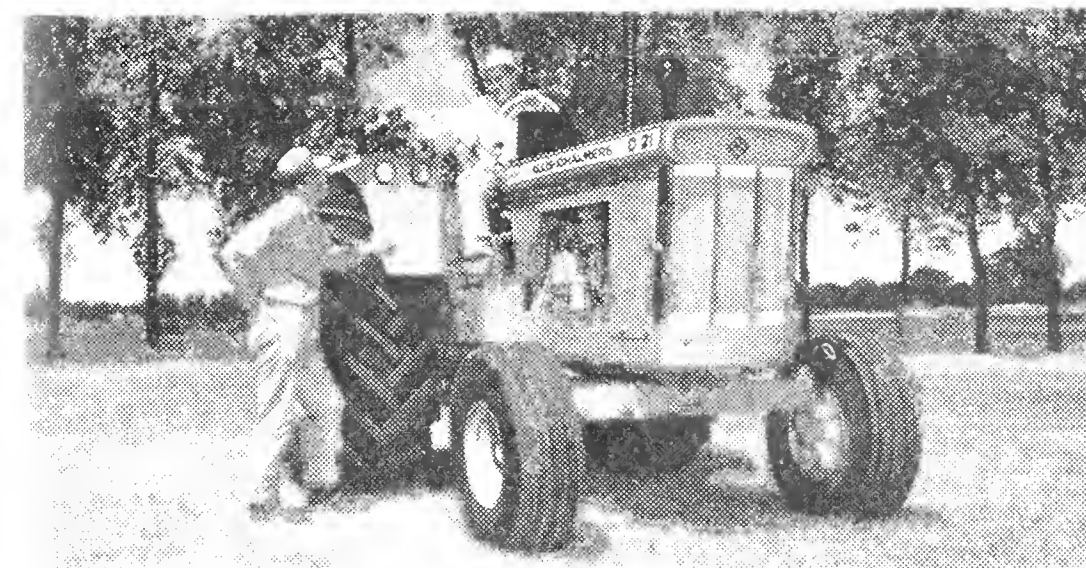
There are a lot of Allis-Chalmers people working together to make Allis-Chalmers the best name in tractors.

Our dealers and their people have a reputation in their home towns which depends on giving your dad and other farmers the best tractors and machinery to work for them. They carry stocks of parts to fill orders fast, and have service people with know-how to rely on.

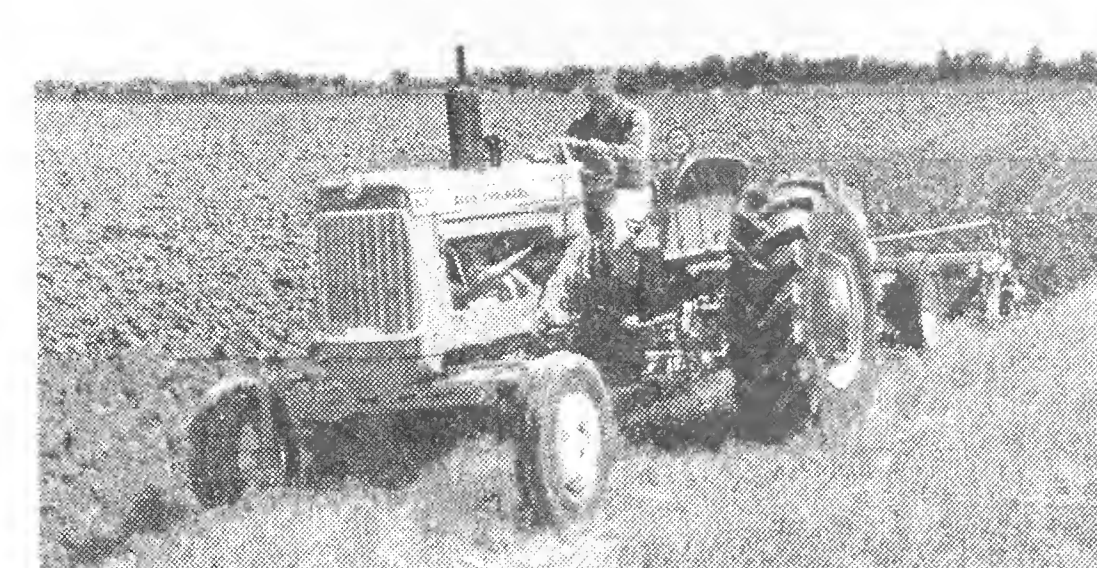
Allis-Chalmers people in our branches, engineers and research scientists, factory people, office people . . . many, many of whom came from farms . . . are all pooling their talents and efforts to give farm people the best.

Maybe this is why your dad and you and your buddy see so many Allis-Chalmers tractors these days.

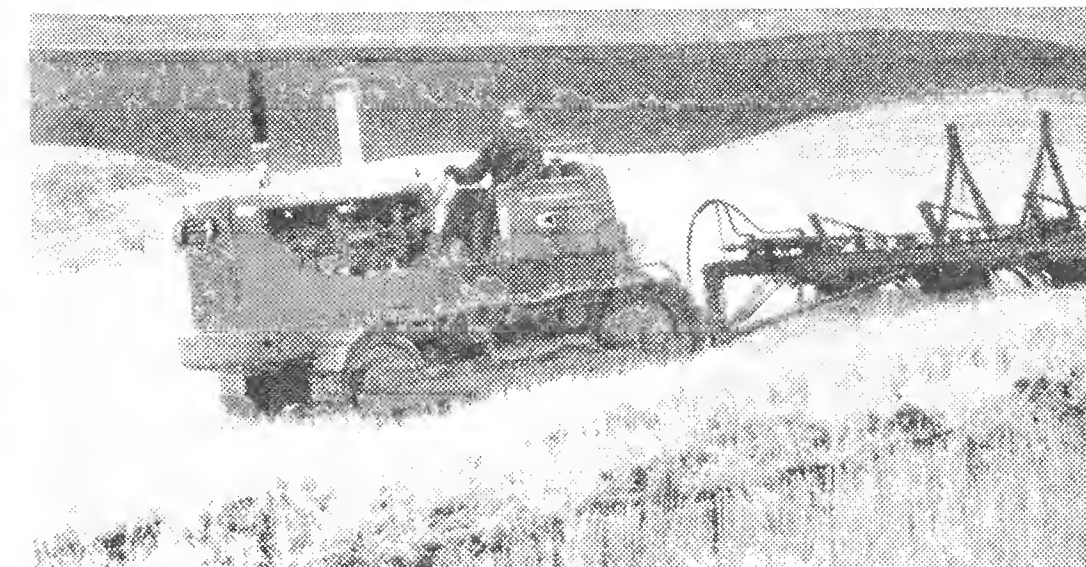
ALLIS-CHALMERS
Milwaukee, Wisconsin



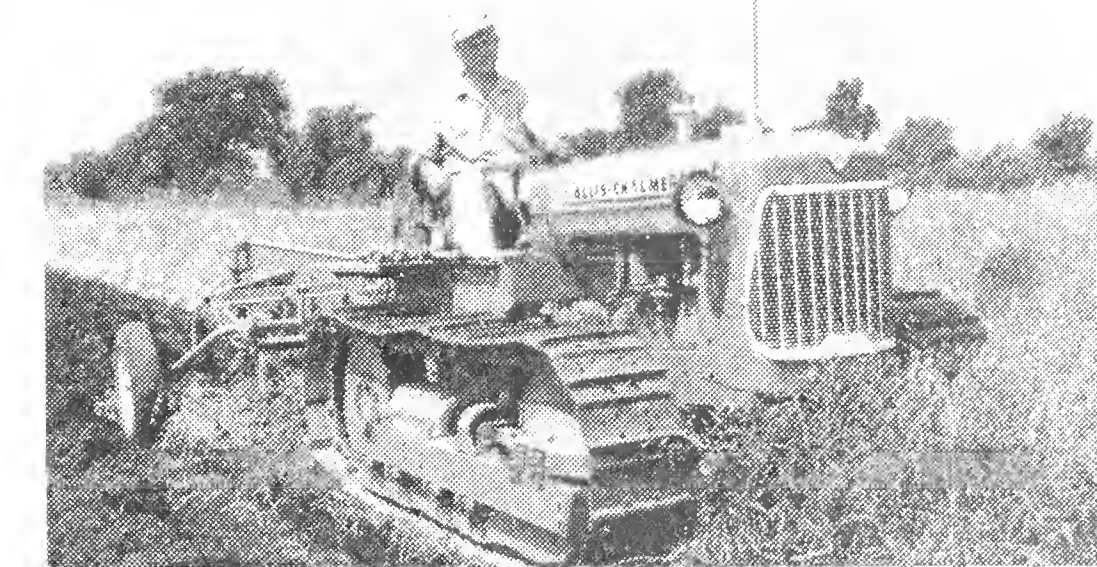
NEW FROM THE TRACTOR PEOPLE. The BIG D. Brutifully new from the tire tracks up. Destined to be top hand in the over 100 horse class . . . for big farms everywhere.



FROM THE TRACTOR PEOPLE. A man's best friend when he's racing the weather. Proved by farmer-acceptance. A top seller in the Big D Line.



FROM THE TRACTOR PEOPLE. Huge crawlers for farms needing power greatness for deep tillage work, section-sized fields . . . traction greatness for toughest hillsides.



FROM THE TRACTOR PEOPLE. A compact crawler. The traction answer for the woods, for slopes, for slippery footing everywhere. The flotation answer for difficult soils.



FROM THE TRACTOR PEOPLE. A new series in this long time "Dependable D Line" has proved to be a real power surprise. Your trusty teammate for today's tough tasks.



FROM THE TRACTOR PEOPLE. Choose from two of the handiest, economical choring and field tractors built. Perfect for delicate cultivation. A special model for 1-row work.

BHL



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FREE GIFT

100—PIECE
CHRISTMAS
ASSORTMENT

Including 15 all-in-color, all different

CHRISTMAS CARDS

With envelopes, plus stringed tags and gaily colored seals for your packages. Sent postpaid when you order your own or a gift subscription.

We have been sending similar gifts to subscribers each fall for several years BUT WE'VE NEVER HAD A NICER CHRISTMAS PACKAGE FOR YOU!



The Christmas package will be mailed as soon as possible after your order is received for Your Own OR a gift subscription.

We will send a card in your name announcing your gift.

You may use one or both coupons.

American Agriculturist
10 No. Cherry St.
Poughkeepsie, N. Y.

A GIFT FOR A FRIEND

Enclosed is \$—— for a gift subscription for a friend for the term I've checked. Also send the 100-piece Christmas assortment at no extra charge.

☐ 1 Year \$1 ☐ 3 Years \$2.50 ☐ 4 Years \$3

Friend's name _____

(Please print)

St. or R.D. No. _____

Post Office _____

State _____

Your name for gift card _____

Your address _____

American Agriculturist
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Poughkeepsie, N. Y.

EXTEND MY SUBSCRIPTION

Yes, I want the Christmas assortment mailed to me at no extra charge. Enclosed is \$—— for the term I've checked below.

☐ 1 Year \$1 ☐ 3 Years \$2.50 ☐ 4 Years \$3

(The longer the term the more you save)

Name _____

(Please print)

St. or R.D. No. _____

Post Office _____

State _____

☐ New ☐ Renewal

AMERICAN AGRICULTURIST

10 No. Cherry St.

Poughkeepsie, N. Y.

NEW

and different

Solar Crop Drying — A folder being distributed by the Committee of Galvanized Sheet Producers, American Iron & Steel Institute, describes research conducted at Michigan State University on a solar drying system for crops. Using a "sandwich" roof of galvanized steel, air within the passages in the roof is warmed by the sun and pulled into a central chamber by a fan. The heated air is then distributed through ducts into grain bins or other storage areas for artificial drying.

Tests showed that heat absorbed by a galvanized steel solar collector can raise the temperature of air on the roof passages from 15 to 25 degrees. Although the solar dryer works best in full sunlight, even on cloudy days the system collects some radiant heat, and the fan circulates air through the crop, removing moisture. At night the system can be used to circulate air through grain, removing moisture and keeping the crop cool; and when humidity is high, the dryer can cut the relative humidity within the barn in half.

Free copies of the folder can be obtained by writing the Committee of Galvanized Sheet Producers, 633 Third Avenue, New York 17, N. Y. Complete building plans may be obtained by writing Agricultural Engineering Department, Michigan State University, East Lansing, Michigan.

* * *

Compact Log Splitter — Mackinaw Products Co., Warren, Michigan, has a compact power implement for splitting logs into convenient firewood sizes. It can handle logs in diameters up to three feet, cut into lengths up to 25½ inches — and can also be used for chipping wood. The unit fits conveniently in pick-up trucks and many station wagons, is equipped with semi-pneumatic tires, with an all-steel body. One model is powered by a 3-hp gasoline engine; the other by a 2-hp electric motor.

* * *

Double-Barreled — A chemical originally designed at the University of Wisconsin as a weed killer is being used (but only in the nursery so far) to protect elm trees from the fungus causing Dutch elm disease.

An injection of TCPA, as the chemical is called, into the trees in early spring delays development of wood with very large sap-carrying vessels, through which the fungus spreads rapidly through the tree. Another effect of TCPA is to plug existing large vessels so that only small cells are open. Research will be continued before the product will be available commercially.

* * *

Milk for Hay Fever? — Researchers at the University of Minnesota have injected germs of human diseases such as arthritis and hay fever into the cow's udder. The cow builds up an immunity in her milk, and persons drinking the milk receive the disease-fighting benefits. The udder manufactures protective antibodies in the same way it does when the cow has a calf. The researchers report 80 percent success with types of human arthritis.

Resist Nematodes — Two seedling varieties of potatoes with resistance to the golden nematode have been developed by the plant breeders in USDA's Agricultural Research Service and field-tested in cooperation with the Cornell University Agricultural Experiment Station.

Tests were conducted on Long Island, where the golden nematode has been confined through rigid quarantine since its discovery in this country in 1941. The two new breeding lines (they are identified only by number) produced 385 and 374 hundred pound sacks per acre, compared to 331 sacks produced by Katahdin in yield-potential tests at Presque Isle, Maine.

In addition to resistance to the nematodes, one of the lines is resistant to late blight and scab, the other to mild and rugose mosaic.

Tests to determine shipping and cooking qualities and to learn more about yield potential must be completed before it is certain that the new potatoes are good enough to be released to growers.

* * *

Sweet Potato Flakes — And pumpkin flakes, too! As a result of research at North Carolina State College, Raleigh, sweet potato flakes are now being prepared commercially, and are on some supermarket shelves. Sweet potatoes are high in vitamins A and C, as well as many of the B vitamins, and are one of the foods highest in mineral content. The first sweet potato flake manufacturing plant in the world was established at Windsor, North Carolina; another is in operation at Benson, North Carolina, and indications are that many more such plants will appear throughout the South.

Commercial production of pumpkin flakes is underway at the Windsor plant. Tests have rated pies made from the dehydrated flakes equal to those made from the best available canned pumpkin.

* * *

Smaller Bales — Research on 12 inch cubic hay bales at the University of Minnesota shows a more compact package tailored for mechanical handling and improved forage quality. The hay was cut in the morning, and with good drying weather was down to 35 to 40 percent moisture and ready to bale by midafternoon.

The small bales were moved directly into a self-unloading wagon, and random-dropped into the dryer. Drying time ranged from 17 to 25 hours; fuel and electricity costs varied from \$4 to \$7 per ton of hay. Engineers found that with the same starting moisture content, the cost of drying is about \$1 per ton less than for the short standard cross section bales.

* * *

New Preservative — A researcher at the Michigan State University has developed a new wood preservative that can add 25 percent to the life of utility poles and posts. It is a grease-like substance applied to a plastic sheet which, in turn, is wound around the underground portion of the pole or post, much like a bandage. Both the U. S. and Canada have granted patents on the new product.

**LIFT THIS FLAP
FOR A SENSATIONAL
NO-RISK
OFFER**

**PLACE THIS
CERTIFICATE
IN AN
ENVELOPE AND
MAIL TODAY!**

CUT ALONG DOTTED LINE

THIS VALUABLE

CERTIFICATE

will bring you

A FREE 30-DAY SUPPLY OF

LIFE NUTRITION

FULL POTENCY CAPSULES

**JUST FILL IN YOUR NAME AND ADDRESS ON REVERSE SIDE,
PLACE IN ENVELOPE**

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FREE TRIAL CERTIFICATE

36-L-45

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Yes, I accept your generous no-risk offer under the Life Nutrition Plan as advertised.

Send me my **FREE** 30-day supply of full-potency Life Nutrition Capsules as checked below:

☐ Men's Plan

☐ Women's Plan

I ENCLOSE 10¢ PER PACKAGE for packing and postage

Name

Address

City Zone State

Offer limited to those who have never before taken advantage of this generous trial. Only one trial supply under each plan per family.

IN CANADA: LIFE NUTRITION, 485 Perth Avenue, Toronto 9, Ontario
(Canadian formula adjusted to local conditions.)

Why Does Daddy Sleep So Much?



A dramatization posed by professional models

CUT ALONG DOTTED LINE

SOMETIMES I couldn't blame my little boy for wondering. It seemed as though the only thing my husband enjoyed was **SLEEP!** For some reason he seemed too tired to do anything.

Fortunately, I saw a Life Nutrition ad that told how many men and women could easily lose their energy because of a vitamin deficiency. The ad revealed that thousands of otherwise normally healthy people had increased their vitality through the famous Life Nutrition Plan.

I sent for the 30-day trial supply that was offered, and when it arrived, my husband started taking one capsule a day. Before long he was his old peppy self again! If you want to help your husband, mail the certificate for your no-risk trial supply.

**DETACH CERTIFICATE,
PLACE IN ENVELOPE AND MAIL TODAY**
(with only 10¢ to help cover shipping)

A powerful formula containing 25 proven ingredients

VITAMIN ADDITIVE For Folks Over 40

(An important announcement for otherwise normally healthy men and women over 40 who may be losing energy and pep due to lack of certain essential vitamins in their diet which are provided for in LIFE NUTRITION Capsules.)

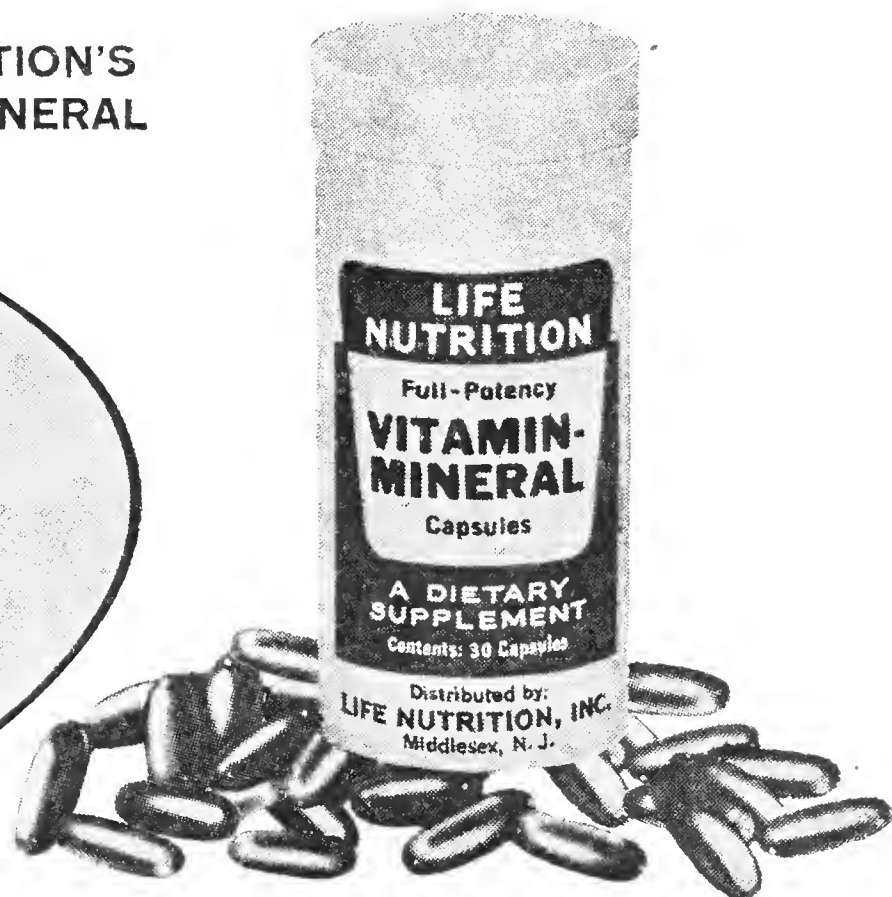
TIRED DURING THE DAY?...WORN OUT AT NIGHT? LIFE NUTRITION'S EXCLUSIVE FORMULA BRINGS YOU FULL-POTENCY VITAMIN-MINERAL CAPSULES FOR EXTRA PEP AND ENERGY.

*Try Them Now At Our Expense!
Prove To Yourself That VITAMIN ADDITIVE For
Folks Over 40 Is Just What You Need To Help You Feel Younger.*

FREE!

FULL 30-DAY SUPPLY

Send only 10¢ just to help cover shipping expenses



VITAMINS, MINERALS, LIPOTROPIC FACTORS AND AMINO ACIDS

Safe, Nutritional Formula Containing 25 Proven Ingredients: 11 Vitamins (Including Blood-Building B₁₂), 9 Minerals, Sodium Caseinate, Choline, Inositol, Citrus Bioflavonoid, and Lysine

LIKE many over 40 folks, you too, may feel worn out, bone-tired right after supper—before the evening has really begun. After supper you may stretch out on the sofa for a “quick nap.” *But the nap lasts all night!* You didn’t plan it that way, but your evening was “shot”, and your family deprived of the love and companionship they have every right to expect.

Of course, your symptoms can result from many causes, and don’t necessarily indicate a vitamin deficiency. But if you are otherwise normally healthy, yet feel tired and run-down due to vitamin deficiency, LIFE NUTRITION VITAMIN ADDITIVE may be “just what the doctor ordered” to put bounce in your step again...sparkle in your eye...add zest to your life.

WHY WE WANT YOU TO TRY A 30-DAY SUPPLY—FREE!

We will send you—WITHOUT CHARGE—a FREE 30-day supply of LIFE NUTRITION VITAMIN ADDITIVE full-potency capsules so you can discover how much stronger, happier and peppier you may feel after only a short trial!

So many otherwise normally healthy people have already tried VITAMIN ADDITIVE capsules with such outstanding results that we are absolutely convinced that you, too, may experience the same feeling after a similar trial. In fact, we’re so convinced that we’re willing to back up our convictions with our own money. You don’t spend a penny for the vitamins during this free trial! All the cost and all the risk are *ours*.

HOW THE LIFE NUTRITION PLAN WORKS

By enrolling in the LIFE NUTRITION VITAMIN ADDITIVE Plan now you are never under any obligation! When you have received your first 30-day trial supply, simply take one Capsule every day to prove that this formula can help you as it is helping so many others. But you are the judge! If you are not completely satisfied and do not wish to receive any additional VITAMIN ADDITIVE, simply let us know in writing before the next month’s shipment, or use the handy card provided and no future shipments will be sent.

EACH DAILY LIFE NUTRITION CAPSULE FOR MEN CONTAINS:

Vitamin A	6,700 USP Units	Choline Bitartrate	25 mg.
Vitamin B1	5 mg.	L-Lysine	
Vitamin B2	2.5 mg.	Monohydrochloride	5 mg.
Vitamin B6	0.25 mg.	Sodium Caseinate	50 mg.
Vitamin B12	2 mcg.	Inositol	15 mg.
Vitamin C	55 mg.	Iron	10 mg.
Vitamin D	500 USP Units	Copper	0.45 mg.
Vitamin E	2 I.U.	Manganese	0.3 mg.
Niacinamide	20 mg.	Potassium	1.5 mg.
Calcium Pantothenate	3 mg.	Zinc	0.1 mg.
Biotin	2.5 mg.	Magnesium	1 mg.
Citrus Bioflavonoid Complex	5 mg.	Sulfur	8 mg.
		Calcium	25 mg.
		Phosphorus	20 mg.

We invite you to compare the richness of this formula with any other vitamin and mineral preparation.

ALSO AVAILABLE, A LIFE NUTRITION PLAN WITH A SLIGHTLY DIFFERENT FORMULA FOR WOMEN. CHECK COUPON IF DESIRED.

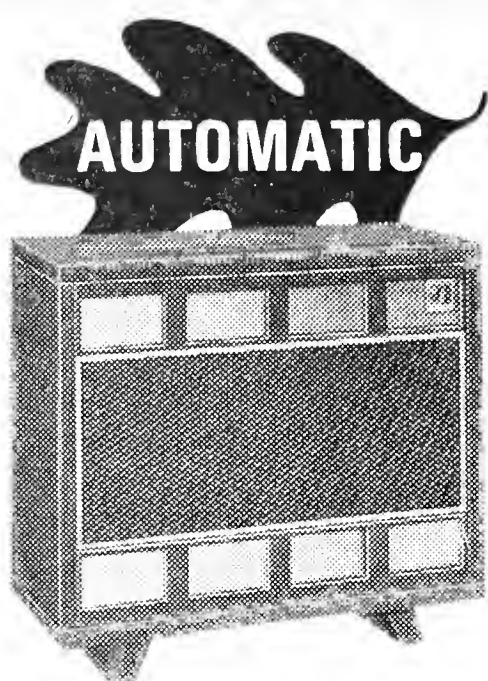
But if you are delighted—as so many others are—you don’t do a thing! We’ll see that you get a fresh, additional shipment of a full two months’ supply of VITAMIN ADDITIVE Capsules every other month automatically and on time—for as long as you wish at our special direct-to-you low rate of only \$1.47 (plus a few cents shipping) per 30-day supply.

You take no risk whatsoever—you may drop out of this Plan any time you wish without spending an extra penny by just notifying us of your decision a few days before your next bi-monthly shipment. Take advantage of our generous offer. Mail the certificate now!

LIFE NUTRITION, 12 East 46th Street, New York 17, N. Y.

A Division of International Oil & Metals Corp.

IN CANADA: LIFE NUTRITION, 485 Perth Avenue, Toronto 9, Ontario



WOOD-BURNING



Now—a new, automatic wood-burning home heater that lets you dial your heating comfort. Needs fueling just once every 12 hours—remove ashes just three times a month. New, modern console styling. World famous Siegler quality construction and exclusive features.

FOR FREE FOLDER AND NAME OF YOUR NEAREST DEALER, WRITE:

SIEGLER HEATER CO.
DEPT. AA-103
CENTRALIA, ILLINOIS



the farmer
brings his wife
—TO SYRACUSE

She comes when he does, on business or pleasure—both made more pleasant here, in spacious, quiet, air-conditioned rooms. Free heated indoor pool. Free TV. Superb cuisine. Sun and Surf Lounge. 8 minutes from downtown business and shopping center.

FREE PARKING



Reservations:
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HOUSE**
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LEG SORES*

Do "open legs" and ulcers *(due to venous congestion) itch, burn, pain? For amazing relief apply LAGOL OINTMENT and wear your elastic stocking or elastic bandage. This method also promotes healing! Mail \$1.00 for generous size LAGOL OINTMENT to Roberts Drug Co., Dept. (3) Brooklyn 37, N. Y.

MONEY FOR YOUR TREASURY

Over 2,000,000 Sunflower Dish Cloths

Were sold in 1962 by members of Sunday Schools, Ladies Aids, Young People's Groups, etc. They enable you to earn money for your treasury, and make friends for your organization. Sample FREE to Official.

SANGAMON MILLS INC.
Established 1915. Cohoes N. Y. 12047



Garden Talk

By NENETZIN R. WHITE

Harbingers of Spring

DID YOU KNOW that flowers are all pre-formed in the bulbs before you even purchase them? They are! Plant bulbs now to enhance your yard with earliest spring blooms. The "minor" bulbs (so called because they are tiny compared to tulips and daffodils) give the first spots of color in the spring. I never cease to be delighted with the colorful, small flowers that really herald spring's arrival.

Because they are so tiny, be sure to plant these bulbs around your walk, terrace, or in the rock garden, where you can see them close by. They often blossom through the snow, and you won't want to wade through drifts to enjoy their beauty. I think they are more attractive planted in groups or informal borders, rather than singly or in rows. Try a few clumps of five to twenty bulbs each, and I am sure you will feel well repaid for your investment.

Since these bulbs are usually quite small, consult a chart for information on just how deep to plant them. They require good, well drained soil, and at least morning sun. Always include bone meal in the planting pockets, as the bulbs need food to produce good blossoms year after year. Also, use a liberal amount of bone meal when they are in flower (even on top of the snow).

Following are a few of my favorite small bulbs:

Eranthis (Winter Aconite). Blooms very early with yellow flowers.

Chionodoxa (Glory of the Snow). Usually blue flowers on small stems.

Galanthus (Snowdrops). Another early bloomer with white, bell-shaped flowers.

Muscari (Grape Hyacinths). Lovely, showy stems of tiny, bell-like florets in blue, purple, or white.

Scilla. Blossoms a little later and is a bit more showy in white, pink, or blue colors.

And last, but not least, the **Crocus**, with mammoth flowers for its small size, and coming in many named varieties of blue, purple, white, yellow, and stripes. Plant these in groups of solid colors, not mixing them. To get a pleasing, random effect, simply take a handful of bulbs, hold them three or four feet from the ground, and drop them. Plant where each bulb falls.

These minor bulbs will usually naturalize, increase, and be with you

for many years. After a few years, if they are too crowded, the blossoms will become smaller. Then, they should be lifted in August, separated, and replanted, again with bone meal in the pockets. Using fertilizer both spring and fall will help a great deal, and a light mulch during the winter is good protection.

Larger Bulbs

Hyacinths have massive, showy, and very fragrant blossoms. They follow the minor bulbs in blossoming time and come in named varieties of red, pink, purple, blue, yellow, and white. Plant these also in "like" groups, but be sure to have enough so that you can cut some for the house. Just a few (even one) will give your home a delightful fragrance.

When planting spring-flowering bulbs, I think it pays to buy top size, except in the case of hyacinths. Here, the top-size bulbs are used for forcing. They are too large and heavy to stand outdoors, and spring rains and winds will knock them over. Use bedding size hyacinth bulbs, especially developed for outdoor planting.

Following the hyacinths, or sometimes overlapping them, are Narcissus (Daffys or Jonquils). There are hundreds of named varieties of these, usually classified by cup or trumpet size. Try to have a few groups of several varieties for a long season of blossoming. Be sure to include some Poeticus or Poetaz, both very fragrant, spray-flowered types.

Narcissus can be planted and treated as other spring-flowering bulbs, but should go into borders further back. They will still show over smaller, spring-flowering plants in front of them, and as the foliage yellows, it will be less conspicuous. The foliage of all the spring-flowering bulbs **MUST** be allowed to ripen and dry before removal. These leaves are essential to the bulb in forming next year's flowers.

Tulips are the largest and most colorful of all our spring bulbs. The earliest varieties overlap the narcissus and others go into very late spring. The earliest of the tulips are the original species or botanical ones. They used to naturalize very well, but as they've been hybridized again and again, some have become quite short lived. These varieties are rather dwarf, from a few inches in height to about 10 inches.

These botanical tulips are followed in blossoming time by single and double types which grow 8 to 15 inches tall—then on through a great range of shapes, colors, and sizes to the stately Darwins, which are 2 to 2½ feet tall. Any and all of these are really lovely. Look at pictures in the catalogs, and then buy to suit your own fancy. If you plant any of the Rembrandt or "broken" tulips, be sure and put them some distance from your other tulips, or they can cause them to "break" and become spotted and contorted.

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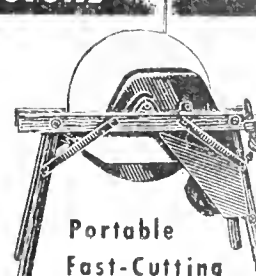
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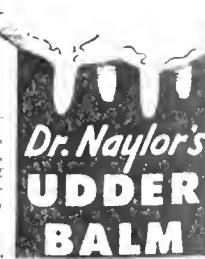
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IN OCTOBER

By Inez George Gridley

When violet and lavender

Have turned to grape and plum

And shadows lie in purple lakes

Upon the painted hills

The wild geese cries, raucous and deep,

Pull at the heart. Fierce tides run high.

The stay-at-home must ache for wings

To follow down the sweep of sky.

Change In The Potato Field

By E. R. EASTMAN

SEVERAL YEARS ago, my friend Frank Clark bought 3,000 acres of apparently nearly worthless land on top of one of the highest hills in Tioga County, New York — in Richford, the northernmost town of the county.

With bulldozers and other heavy equipment he tore out stone walls, uprooted brush and small trees, picked off stones and boulders, and made practically 700 acres of cropland. The rest of the tract he left in natural timber to mature, and reforested 500 acres that were good for nothing else.

On this hilltop Frank grows two to three hundred acres of potatoes every year, rotating the potatoes with cover crops like rye and clover, which he plows under. Just to see these great fields of potatoes running on and on almost as far as the eye can reach on land that grew nothing before, (as I do every year) is one of the most amazing sights I have ever seen.

This big enterprise is all the more wonderful to me because it is only about five miles from another hilltop where I was born, and it's only a few miles farther to the good valley farm where I spent most of my boyhood.

I have been in the big potato fields of Aroostook County in Maine, on Long Island, and in Steuben County, New York, where potatoes are also grown on a large scale, and I never cease to marvel at the startling changes in farming that have occurred in my lifetime, illustrated so well in potato production.

Hand Work

On the home farm we grew three or four acres of potatoes, planting them by dropping and covering them by hand. They were cultivated three or four times with a one-horse cultivator and then carefully hilled up with a hand hoe. How I hated that tiring, monotonous work during the long ten-hour day. We killed the bugs with Paris Green and a little hand-operated spray pump; we never used over three or four hundred pounds of acid phosphate; and we harvested the potatoes by digging them with a hand potato hook and picking in bushel crates.

Some of our potatoes were stored in the cellar in the hope that the price would be better in the winter, and some were hauled by team and wagon to the distant railroad station. When potato prices were good, we boys got new boots and clothing, and maybe had a good Christmas; when the prices were down, we didn't. I can remember selling potatoes for fifteen cents a bushel.

Now, taking Clark's methods as an example, behold the change! This year he is growing 275 acres on that hilltop in contrast to our three or four acres on good valley land. We were happy every year if we got a yield of 125 bushels to the acre; on the Clark farm anything under 400 bushels is regarded as a poor yield—600 bushels is not unusual.

"On spring-plowed land," my friend, Mr. Lewis Hardison (Mr. Clark's friendly and efficient nephew and manager) said, "we pull a clodbuster behind a four-bottom plow and plant with no further preparation. The planting is done, of course, with machinery. Over a ton of 6-12-12 fertilizer per acre is used, and lime enough to keep the pH close to 5. We cultivate only one or

two times, and hill the potatoes just once by machinery. To control bugs, and especially blight, we use a 16-row air blast sprayer once a week.

"To mature the potatoes before frost, we beat the green tops with a rota-beater, and then kill the stalks with the spray. Potatoes are dug with two-row diggers, and I never get over the thrill of seeing these long rows of beautiful potatoes on top of the ground behind the digger. They are picked in baskets holding $\frac{5}{8}$ of a bushel, and bagged with two baskets to the bag.

"Unfortunately, an efficient machine to pick up and grade potatoes on stony ground has not yet been invented, so we employ about 120 people—migrants from Florida—who follow the season by working in Florida during our spring and for us here in the North during the potato harvest. For the most part these people seem happy and content, singing at their work. They are piece workers, and make from \$12 to \$20 a day."

Too Fast

Lew thinks, incidentally, that we are trying to go too fast in New York State, in solving the negro problem, and that educational work has to be done with children.

"It's too late to change people very much after they are twenty-five years old," he commented.

Like all other farmers, potato growers have a difficult marketing problem. All the potatoes from the Clark farm go into winter storage, and about half of them are sold for seed; the remainder for chips and other table uses.

Lew wondered why the yield of potatoes was so small years ago even on good land. We agreed that fertilizer, both in quality and in amount, was the chief difference between the 125 or 600 bushels per acre. A smaller factor is the modern use of lime, more and better spray materials, and better seed now as compared with what we used. In the old days we always planted small potatoes, with the same results that you might expect if you always bred cows from the poorest individuals in the dairy rather than from the best.

I asked Lew what he thought about the future of the potato industry, and added that when I was young we ate potatoes three times a day. Now, like the city consumers, we have them only once a day.

"Yes," he answered, "but maybe that is partially offset because there are so many more people. And potatoes are being used in so many more ways than they used to be. What's more popular than french fries and potato chips?"

"We growers in some areas in the East have the disadvantages of small fields, stones, etc. But we do have the advantage of being close to the markets. If we take full advantage of this closeness to markets we should be able to compete with the faraway potato-producing areas. However, we have a lot to do toward upgrading our potatoes and telling the housewife that they are good quality. We need a strong promotion program—but first have to grade potatoes so that we have something to promote that we are proud of."

Editor's Note: See picture on Page 11.

NOW!

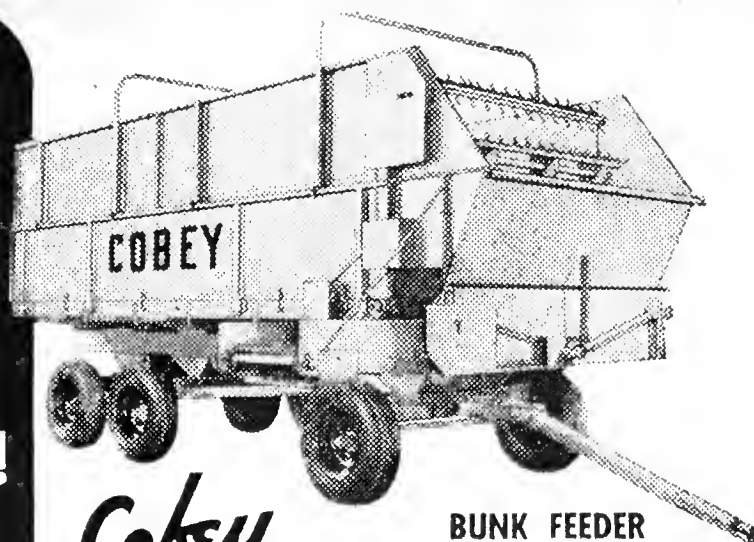
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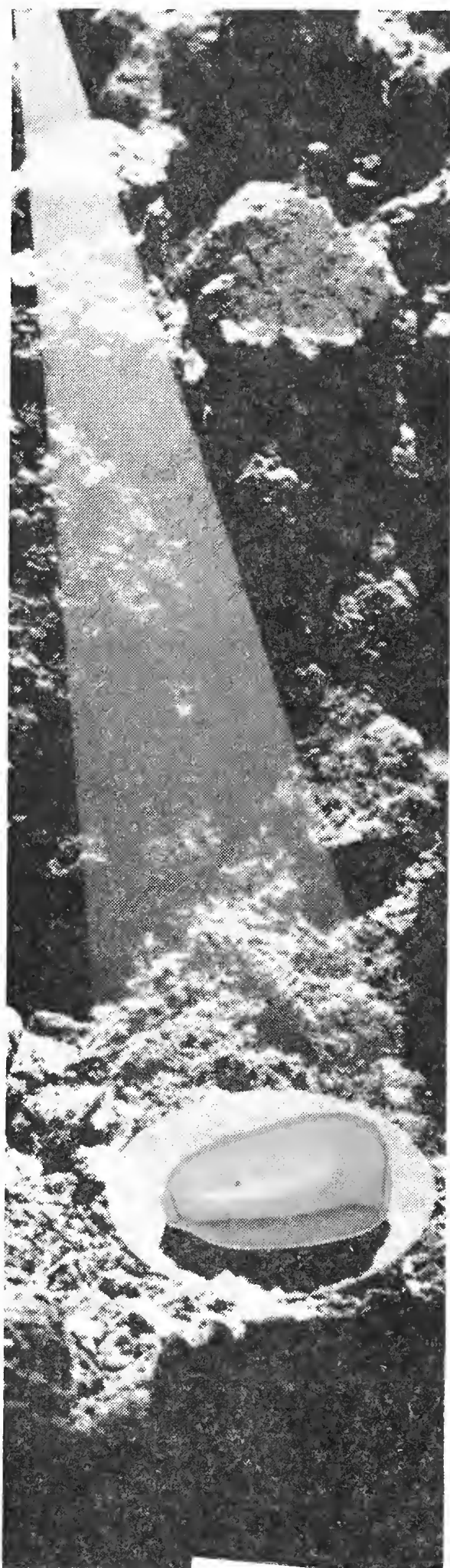
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N. Y. Hort Society Tour

By E. EARL HARDING*

THE NEW YORK Horticultural Society Tour visited the Key-stone State this year. There were about 210 of us, so the housing and arrangements took a bit of doing.

The first evening we assembled at the Penn State College orchards



E. Earl Harding

for a look-see. The College is not in the best fruit area of the State (due to wide temperature ranges) and it was interesting to hear how they had saved an apple crop early this season by heating. The temperature in some parts of the orchard had gone down to 21 degrees. They used five gallon pail heaters, one per tree, at a heating cost of \$1 per tree. They must also have had good cooperation with the air currents to have saved their crops!

The next morning we all boarded buses. Our first stop was at the Charles Packard Roaring Spring Orchards. This large orchard was being entirely renewed. The process had started by interplanting, but in the end it was concluded this was not very successful, and we got the impression that one should clear the land of all trees and start over.

New Orchards

We also saw several areas at Mr. Packard's (as well as at other farms) where the forests had been cleared and apples planted, at a cost of about \$300 per acre. He was putting a heavy mulch around his young trees, using grass cut in the low lands and spread in the orchard with a self-unloading wagon. Spraying with Endrin seemed to be quite widely used for mouse control.

In most cases the orchards we visited were planted on hill sites, giving them good air drainage and better frost protection. In fact, in some cases the lower part of the orchard had been frozen out this year, showing the advantage of the higher plantings.

Next we visited the Cove Apple Marketing Cooperative at Martinsburg, managed by Robert Meredith. This cooperative was started in 1962 by purchasing an unused processing plant, converting it into a cold storage, and adding a large packing room. It is owned by five growers, but packs the apples from ten farms.

Due to frost damage, this year they are looking for some outside apples to handle to cut down on overhead. It's a large plant, very modern in every way, with an investment of around \$400,000 — a rather large investment, I thought, for the amount of apples handled at present. But these men do have a potential annual production of 500,000 bushels by 1968.

We visited the orchard of Donald Amish at Fishertown, where we saw semi-dwarf trees on Malling VII planted in 1962 and spaced 25' x 10'. He had just cleared one hill of forest trees and planted apples.

*President, N. Y. S. Horticultural Society

Here also we had our first look at "chert" soil on one hill. To a New Yorker it looks very stony, but is apparently a good fruit soil. My impression of it was that they should have very little trouble controlling weeds because there was hardly room for weeds to grow. Also, the stones make a very good mulch cover so far as conserving moisture is concerned.

After an overnight stay in Gettysburg, we headed for the John Peters orchards at Aspers. Here there are 1,000 acres of fruit — 660 apples, 260 peaches, and 80 of sour cherries. John plants apples 35' x 20' and 20' x 20', using all standard trees; he believes that they do better for him in his soil than dwarfs. Trees are fertilized and sprayed from the time they are set to get them into bearing just as soon as possible. One block, set 35' x 25', at 7 years of age had 500 bushels per acre, and he expects 1,000 bushels per acre this year at 9 years of age.

He trims to a central leader, aiming for wide angle crotches. His trimming method on the close spacing is to hold the trees back so that a man can walk between them on the close spacing side and leave fruit spurs all down the limb. Thus he eventually gets a sturdy limb that bears a heavy crop and does not need propping.

Our last stop was at the Knouse Cooperative at Peach Glen, managed by Mr. Knouse and Mr. Peters. This is, in my opinion, the outstanding processing cooperative in the East. The organization was started in 1949, and I remember at the time Mr. Peters told me that it took 29 cent apples really to get the growers together. As I had quoted his comment several times, I checked with him about it, and he repeated that it took a real disaster to get them together.

Mr. Knouse told us that in the fourteen years they have been in operation they have always paid the growers the going cash price for apples, as well as building up substantial reserves. They have three very large modern plants and process a variety of apple products, selling under the Lucky Leaf brand. They have refrigerated storage capacity for more than 1,300,000 bushels of apples for processing purposes.

Unusual Rules

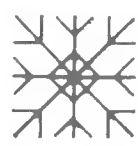
There are about 250 members in this cooperative, and rulings are different than any I have ever heard of before. A member is not obligated to deliver any apples to the cooperative in any year, nor is the cooperative obligated to take any of his apples; the only obligation is that the grower do some business with the cooperative in each year.

To become a member (they have a waiting list) a grower has to be voted in and buy \$1,000 worth of stock. There is also a custom that eventually he should have \$100 invested for each ton of apples or cherries he delivers. This is generally built up by participating certificates issued by the cooperative over a period of years.

Several things on this trip impressed me very much, especially the forward thinking of these grow-

(Continued on Page 42)

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REPORT**



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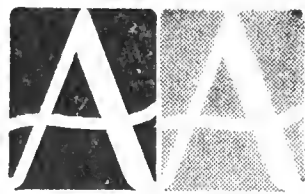
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FARMS, HOMES, businesses, west and north of Albany, N. Y. Wimple, Realtor, Sloansville, New York.

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(Continued on Opposite Page)

ADDITIONAL CLASSIFIED ADS

(Continued from Opposite Page)

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ADDITIONAL CLASSIFIED ADS
(Continued on Page 43)

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817

817. Head-hugging hats to knit of mohair or other worsted. Make one to keep, one to give. Knitting directions for two smart shapes to fit all head sizes. 25 cents.

594. Grandma and Grandpa Turtle are fun pillows or TV hassocks for tots. Make of scraps; stuff with worn fabrics. Pattern pieces for 15½ x 19-inch pillows. 25 cents.

7143. Star doilies to spark a table setting. Each has edging of lacy scallops. Crochet directions for 18 and 11-inch sizes in No. 50 cotton. 25 cents.

647. Knit mittens for all the children. Use leftover wool of many colors. Each mitten one flat piece, done on 2 needles. Directions for sizes 4, 6, 8, 10 included. 25 cents.

7139. Birds of a feather — cross-stitch these gay motifs on checked gingham. Size of check gauges size of stitch. Trim gift aprons, mats, many things. Chart, color chart, directions. 25 cents.

7452. Need a number of small gifts? Make these potholder pets. Each just two pieces plus stitchery, binding. Transfer of 8 designs about 6 x 6½ inches. 25 cents.

641. Gift aprons to sew of remnants. Trim with binding, bows, patchwork. Pattern pieces, directions for three thrifty styles. 25 cents.

611. Crocheted cap and mittens for a special little girl. Make set in her favorite color. Crochet directions for set to fit 2 to 8-year olds. 25 cents.

7032. Knitted shift — a stunning gift to make for YOURSELF. Smart pattern stitch with cable panel. Use Germantown nylon. Directions for sizes 32-34; 36-38 included. 25 cents.

563. Thrill a little girl with a knitted wardrobe for her teen model doll. Includes garments shown. Knitting directions for 11½-inch doll ONLY. 25 cents.

7447. Beloved boots to wrap in tinsel — a gift that's sure to please. Each just two pattern parts to whip up quickly. Pattern, directions for small, medium, large sizes included. 25 cents.

7093. Embroider these lively tots on pillow tops, curtains, linens. Frame them for pictures. Children love them. Transfer of 12 motifs about 4 x 5½ inches. 25 cents.

519. "Paint" these handsome pictures with your needle. The pair makes a wonderful gift for boy or girl. Easy embroidery. Transfer of two 8 x 10-inch pictures. 25 cents.

888. Rose motifs in simple cross stitch for sheets, pillow cases, scarves, towels. Transfer of one 5¼x25½-inch motif; two 4½x13½. Directions. 25 cents.



611



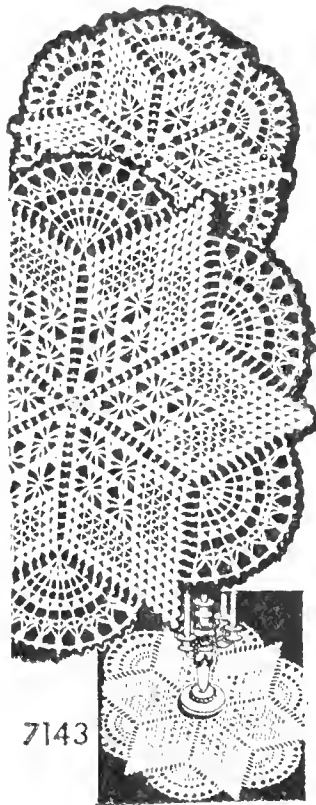
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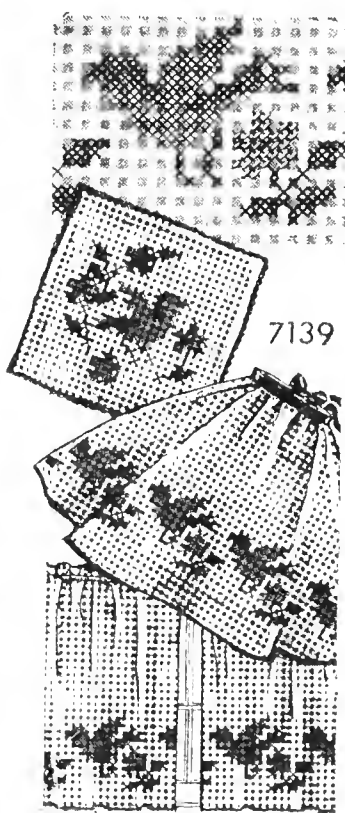
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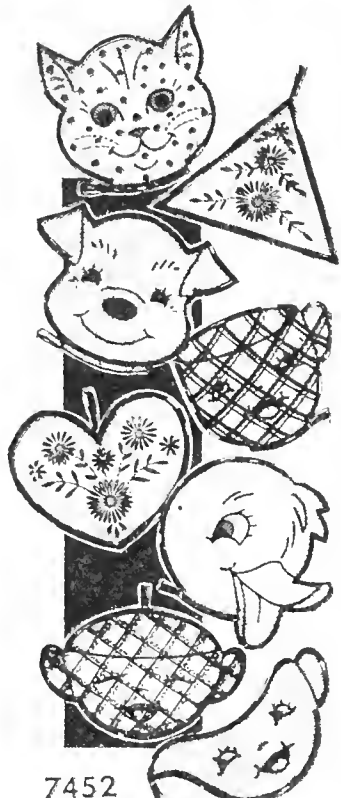
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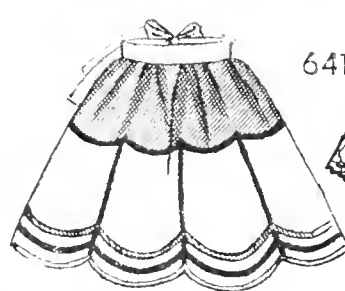
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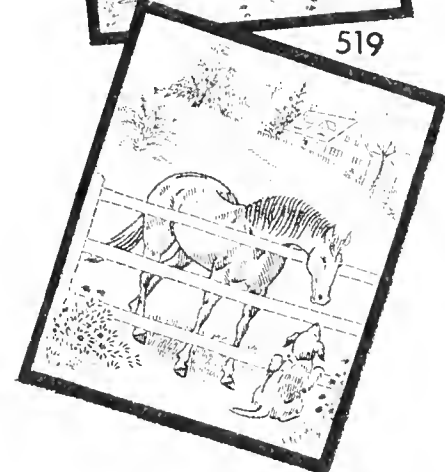
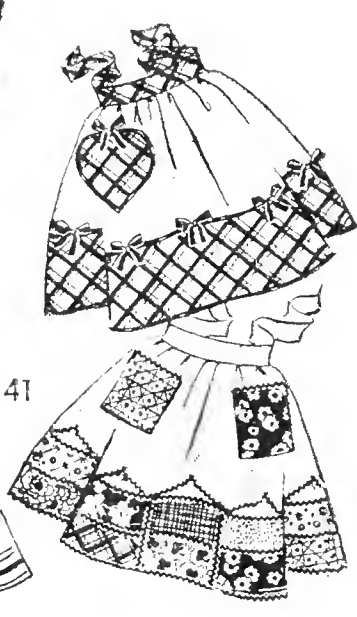
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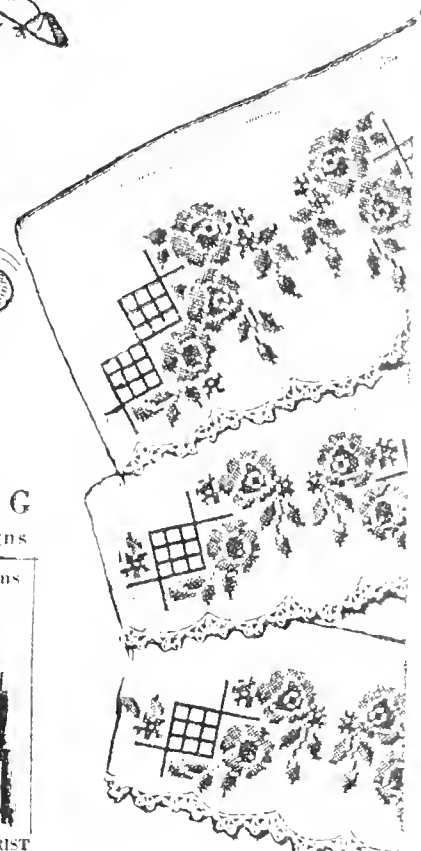
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641



888



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Tasting is their job! At the 1963 New York State Exposition in Syracuse, foods judges sample delicacies in the Concord Grape Recipe Contest. Mrs. Yager's Grape Juice Dessert is the darker colored entry. Left to right in the picture are Mrs. Gerald Twentyman of Homer, Food Competition Superintendent; Mrs. Edwin L. O'Donnell of Fulton, Foods Judging Coordinator; Miss Mary Eckley, Assistant Food Editor of McCall's Magazine, and Mrs. Jean Weddle of Homer, a staff member in the foods department.

BLUE RIBBON RECIPES

By Alberta D. Shackelton



THE ART of Cooking" Food Competition featured at the 117th New York State Exposition held in Syracuse last month gave many New York homemakers the opportunity to exhibit their prized dishes and recipes, and we think you will be interested in a few of the special award-winning entries. We have not had an opportunity to test the recipes and are passing them on to you as we received them from the Exposition's Food Competition Department.

Four pewter pitchers, in memory of Lucille Brewer (former foods writer for AMERICAN AGRICULTURIST), were awarded by Cooperative G.L.F. Exchange, Inc. Following are the classes and name of the winner in each class:

Miss Rose's White or Whole Wheat Bread — Mrs. Katherine Cooper, Grubb Hill, Kennedy, N. Y.;

Peach Upside Down Cake — Mrs. Ray Chesbro, Chesbro Rd., Central Square, N. Y.

Most Original Cookie — Mrs. Vera Samuels, 118 Westview Ave., Syracuse, N. Y.

Most Artistically Decorated Cake — Mrs. Ray Lanzafame, 103 Rustie St., Rochester, N. Y.

Recipes for Miss Rose's Bread and Mrs. Samuel's Peach Spice Chip Cookies are given below.

MISS ROSE'S BREAD*

- 2 cups milk
- $\frac{3}{4}$ cup melted butter
- $\frac{3}{4}$ cup sugar
- 1 tablespoon salt
- 3 yeast cakes
- $\frac{3}{4}$ cup lukewarm water
- 6 eggs
- $1\frac{3}{4}$ cups whole wheat flour
- 4 to 5 cups all purpose flour

Dissolve yeast in warm water. Scald milk; add melted butter, sugar, and salt; cool to lukewarm. Add softened yeast, eggs, and whole wheat flour. Beat until smooth. Add enough of the all purpose flour to make slightly stiff dough.

Turn dough onto a floured board and knead until smooth. Place in a greased bowl, cover, and let rise until doubled in bulk. Punch down, let rise again, and shape into three loaves. Place in greased bread tins. Cover and let rise until dough fills each pan.

Bake in a quick hot oven (400°) for 15 minutes, then in a moderate oven (350°) for 30 minutes. Remove from pans and cool on wire rack.

Note: For all-white bread, use 1 cup butter, 1 cup sugar, and approximately 8 cups white flour.

*This bread was developed by Miss Flora Rose, former director of the College of Home Economics at Cornell University. It was a favorite with Miss Rose because of its excellent flavor and extra food value.

PEACH SPICE CHIP COOKIES

- 2 cups light brown sugar
- 1 cup soft shortening
- 1 teaspoon salt
- 2 eggs
- 1 cup mashed canned peaches and juice
- 1 cup chopped pecans
- 1 tablespoon concentrated lemon juice
- 1 6-oz. package butterscotch chips
- 5 cups sifted flour
- 2 teaspoons baking powder
- 2 teaspoons baking soda

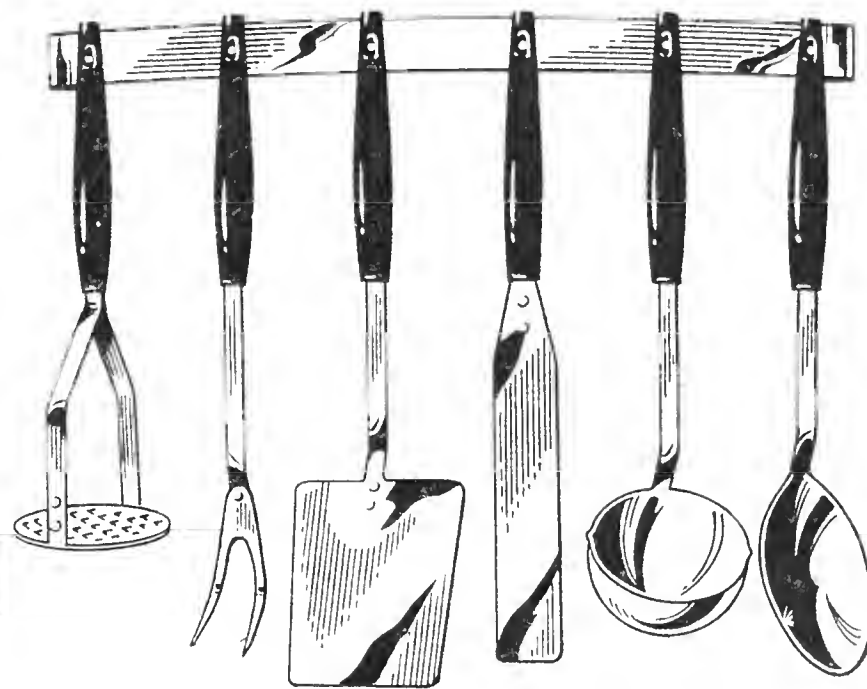
Cream together shortening, sugar, and salt. Add eggs, beating well. Sift together dry ingredients and add alternately with peaches, lemon juice, chips, and nuts. Drop on cookie sheet, top each cookie with a pecan, and bake at 375° for 10-12 minutes. Makes approximately 5 dozen cookies.

Mrs. Emma Hilton, Central Square, N. Y., received a silver tray awarded by The Empire State Potato Club for her prize winning Potato Spice Cake, the recipe for which is given below.

POTATO SPICE CAKE

- 2 cups flour
- 2 cups sugar
- $\frac{1}{2}$ cup cocoa OR 3 squares chocolate
- 3 teaspoons baking powder
- $\frac{3}{4}$ teaspoon salt
- $\frac{1}{4}$ teaspoon each, cloves, nutmeg, cinnamon, all spice

(Continued on Page 43)



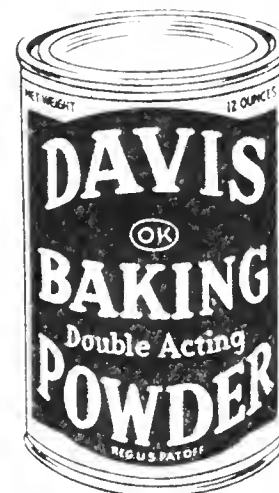
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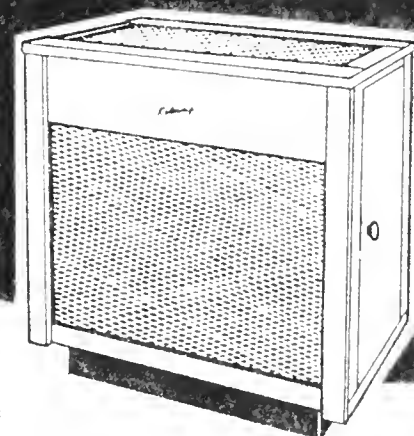
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AS I SAW INDIA

By JEAN FULLER

PRECONCEIVED ideas of India certainly were exploded in the minds of ten rural Americans during their seven weeks' visit to that country in February and March of 1963. As members of this group of ten, my husband and I were privileged in going to India to participate in an exchange program sponsored by Farmers and World Affairs Inc., of Philadelphia, Pa.

Like many Americans, we had thought of India as a land where the caste system prevailed, a land of giants with bearded faces, of veiled ladies, flute players and snake charmers . . . a land with elephants lumbering around bearing heavy burdens, and a land with sacred cows and people bathing in the holy rivers. While these things do exist, this picture is as unrealistic as the popular Indian conception of all Americans being very rich with servants to do their work, and living extremely "fast" lives, with everyone owning at least one Cadillac car!

India is much more than these accepted ideas. And in this era when "no man is an island," and when actions in one part of our ever-shrinking globe instantly bring reactions in other parts, it becomes more and more necessary to understand these emerging peoples. We must not only study and attempt to realize what their present problems are, but also we must know the achievements of minds and crafts wrought in their yesterdays.

Only then should we be privileged to listen to their aspirations and dreams of a better tomorrow, and to help make these dreams come true. India's future is our future. Where India goes, economically and politically in the next decade, will determine the fate of the rest of Southeast Asia. And who can hazard a guess as to how much more of the world?

Steps to Understanding

It would be facetious for me to attempt to establish all the realities of a country that is over one-third as large as the United States, is peopled by one-seventh of the whole world's population, and which has a recorded history of 4000 years. An old proverb reminds us that "every long journey starts with small first steps," so understanding India's problems must come step-by-step for us all.

Words do not always carry meanings too reliably, and besides India is far more than words can define. India is sights — sights of ancient palaces, forts and tombs, and contrasts between beautiful gardens and people living in bleak, pitiable conditions.

India is sounds — sounds in many villages, for instance, of the flour mill's pong, pong, pong, representing life and sustenance for the people there, and their utter dependence upon the land.

India is tastes — the spicy foods, the steaming hot tea, the unusual fruits, cardamoms used for flavoring, and other native spices.

India is odors — sandalwood and incense in numerous homes, the smoke, heavy in the morning air, from many cow-dung fires, and often the odors of unnumbered animals roaming at will— all this blend-

ed with the sweet smell of the small flower beds and blossoming trees.

Even more than these, India is people — people living in our same dimension of time and space, but with traditions reaching back through the centuries.

Despite these differences we found ourselves fascinated by the similarities between the Indian people we met and the friends we left back home. Many of our likes and dislikes are the same, and we found them eager to share their lives and homes with us, and to show us their progress. Everywhere we found touching examples of India's gratitude for the help she is receiving from America and other countries, both in money and in people sent to work with them.

Low Averages

It is hard to realize that even though the average income has increased 16 percent in the last few years, it is still only \$70 per year; that the average diet is still deficient by one-third the normal caloric requirements, and life expectancy has increased to only 42 years; that even though school enrollment is rising rapidly, still 70 percent of the children between 11 and 14 years of age are not attending. In spite of these low averages, the increases noted do indicate that the people's needs are gradually being met.

There are a few well-to-do farmers, less than one percent of the total number, who are farming in a profitable and progressive manner and are, by their example, helping to make an important change in the people's outlook. Today, most "cultivators," as the farmers of India are called, live as their ancestors lived. Until a few short years ago, the concept of progress with the hope of a better life for themselves and their children was completely outside their experience or thought.

India's problem, then, is to teach its millions the knowledge, skills, and attitudes necessary to adapt to this new world into which they have suddenly been thrust . . . also, to accept the responsibility, which came with their emergence as an independent nation, of helping bring peace to an unsettled world.

Picture a village of two thousand people whose homes are crumbling



Pictured above, with the ten rural Americans who visited India earlier this year, are Mr. R. B. Deshpande, Executive Secretary, Farmers' Forum, New Delhi, and Mrs. Deshpande. That's Jean Fuller in the light dress, and her husband, Leonard Fuller, is behind Jean. Mr. Fuller is chairman of the New York State Grange Executive Committee.

clusters of mud walls and thatched roofs. The brown, dusty plains stretch toward bleak, scrub-covered hills on the horizon, and barefoot women in colorful red or orange garments tend the herds of goats or cattle, or work in the fields. Bored looking camels wind endlessly 'round and 'round, drawing water from the wells that mean life or famine to these people. Ancient, pagoda-like structures mark the final resting place of former rulers and landlords.

This village and many others like it belonged to one man, who lived in a grand palace and exercised a life-and-death power over his sub-

jects. Often he would take up to two-thirds of their yearly production for rent. This was village life until India secured her independence!

Now all that has been changed. The people were freed from the landlord, and his palace was taken over by the government. But although the people wanted to improve their villages and produce more to eat, they did not know how; they were but dimly aware of conditions in the outside world, and so life for them stood still.

Help From Extension

Then, Extension Service officials came to establish a Community Development Program and to show the local units of government, called Panchayats, how to remold and raise the standard of village life. Since 85 percent of India's people live in villages but work their allotment of land outside the village, this process is slow. Progress is being made, however, slow though it may seem to those who do not realize the scope of the task.

Statistics show that in 15 years extension workers have distributed two million tons of chemical fertilizer and one million tons of improved seeds. They have assisted in the construction of 184,000 wells to provide pure water and opened 156,000 literacy centers, teaching three and seven-tenths million people to read. They have helped build 110,000 miles of roads to connect isolated villages with the main highways, and thus with the outside world.

For these construction projects,

(Continued on Page 43)

Threshing scene in India shows father and son using the same primitive methods that people have used for centuries.

OUR AUTUMN CINDERELLA

By HAZEL B. CORLISS

TO US, ON OUR Basin Farm in southern Vermont, October is the most enchanting month in all the year, and autumn is the season we like best. Each October, Mother Nature waves a magic wand, and our Basin is transformed into a beautiful fairyland! Autumn is like Cinderella as she rides in the coach of our biggest pumpkin, pulled by sleek rabbits that have been feasting on our garden all summer.

Her gown is a shimmering sheath of flamboyant colors with scarlet and gold predominating. Atop the tall grasses of her waving hair, she wears a crown of goldenrod entwined with purple asters. She carries a big bouquet of bright marigolds and zinnias, and her splendor is so superb that folks come from near and far to gaze upon it with admiration. Her jewels are grapes of amethyst, but she is also majestically adorned with the ruby-red apples and tomatoes.

Her eyes seem to see all our shortcomings, and we feel small and humble, so overwhelmed are we by her magnificence! In our hearts we vow that we shall strive to be more worthy of this God-given spectacle that lasts only a few weeks.

Flirtatious

Behaving like a teenager, our Autumn Cinderella basks in the warm, motherly bosom of summer; or, flaunting her charms, she flirts with the noisy and brazen crows, as she dances among the corn stalks, her skirts rustling like taffeta. She chatters with the squirrels and chipmunks, and plays hide-and-seek with the rabbits and field mice. Being warned by the departure of the summer birds, these animals are hurrying to finish foraging for their winter's food. She teases the woodchucks and coons who are now fat and lazy.

She delightedly wades in the overflowing brooks. She pleases the elusive partridge, who listens proudly as her fine young family is admired. She stops to say "Hello" to Daisy the Jersey cow, chewing her cud in the late summer sun, and gaily greets Peter the pig, who does not dream that he, too, will soon be in the "deep freeze." Although praising him for being a good watch dog, she also chides Scamper for barking at the unusually large number of passing cars, which put our roaming pullets to hasty flight.

It is with a deep sense of satisfaction that we show her our harvest—the hay in the barn and the vegetables and fruits in the cellar and freezer, representing a summer of hard work and long hours.

At first, the winds are mild and mellow, gently fluttering her colorful skirts. But with the wisdom of the ages, and knowing their own whipping power, these breezes whisper among themselves that such bewitching beauty cannot last—they know her eventual downfall!

As evening approaches, our Autumn Cinderella's colorful beauty is breathtakingly highlighted against the deep blue of the sky, as the setting sun lingers to kiss her good-night. With our enraptured eyes upon her, we stumble doing our evening chores.

Feeling lost and lonely in the deepening dusk, she is delighted to see the deer come out of their daytime hiding places to graze in the

high pastures. She listens to our hens, bickering for a preferred place on the roost. During the night, she is wooed by a would-be Prince Charming, Jack Frost, who spreads a carpet of cold silver at her feet. But by mid-morning, she has tauntingly eluded his icy grasp, and is again enfolded in the warm arms of Father Sun.

Tattered Garments

As the days pass, and the sun gradually loses his shining strength, our Autumn Cinderella slowly slips from his tender clasp. Her dress becomes tattered and torn, and we sadly rake up the colorful remnants, putting them on the garden as fertilizer. The road men will soon come to cut her long hair, so it won't get caught in the snowplow.

Unlike the air of the city with its smell of burning leaves, our good clean air has the appealing aroma of wood smoke coming from the fire in our old kitchen stove. In autumn, this aroma is often mingled with the tantalizing fragrance of simmering green tomato pickles and mincemeat, or the baking of a spicy apple pie and homemade bread.

Every autumn we look forward to sitting on the highest knoll in our pasture, where we can survey fully the colorful majesty surrounding our small farm in The Basin. We reflect sadly, as we sit, that since all living things need rest, Mother Nature will soon see that the Cinderella of Autumn again sleeps beneath a warm ermine blanket of snow, leaving us still another "glass slipper" as an heirloom of remembrance.


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1½ teaspoons salt
¼ cup Blue Bonnet Margarine
2 packages Fleischmann's Active Dry Yeast
½ cup warm water (105°-115°F.)

Scald milk; stir in sugar, salt, ¼ cup margarine. Cool to lukewarm. Dissolve yeast in warm water.

Add milk mixture, eggs, half the flour. Beat until smooth. Mix in enough flour to make soft dough. On lightly floured board knead until smooth and elastic, about 8 min.


Place dough in greased bowl, turning to grease top. Cover; let rise in warm draft-free place until doubled, about 1 hour. Punch down. On floured board divide dough in half.

Blend peanut butter with softened margarine until smooth. Roll half the dough into 16" x 12" oblong. Spread

2 eggs, beaten
4½ cups unsifted flour (about)
¾ cup Planters Creamy Peanut Butter
6 tablespoons Blue Bonnet Margarine, softened
¾ cup strawberry jelly, jam or preserves

with half the peanut butter-margarine mixture. Spread with half the strawberry jelly. Roll up from 12" side; seal seams.

Cut 12 one-inch slices; place in greased 9" square pan, cut side up. Repeat with rest of dough and filling. Cover; let rise in warm draft-free place until doubled, about 1 hour. Bake at 375°F. 20-25 minutes or until done.



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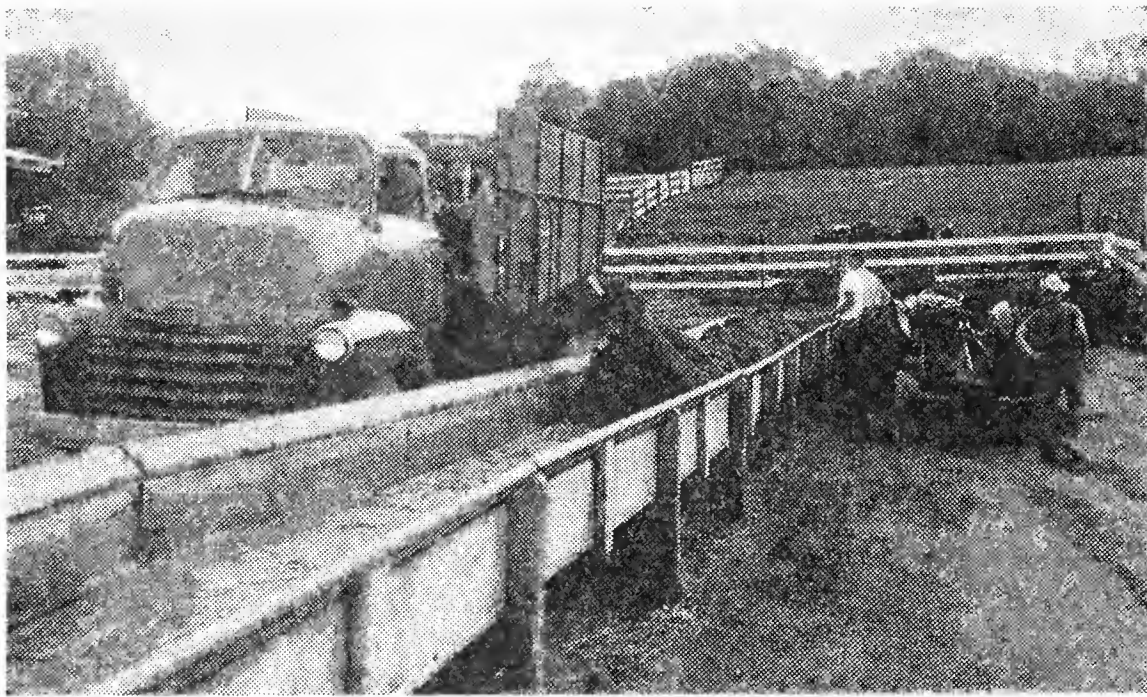
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Lou Longo's feeding bunk, here being filled with a side-unloading unit mounted on a truck, is in the middle of the paved area.

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"We are changing from strip grazing to 100 percent zero pasture and free choice stalls in our 64' x 120' pole type barn," says Lou Longo of Glastonbury, Connecticut.

I happened to visit Lou when they were concreting the pen stable. The stalls are 42" wide and 72" long. Lou found that in some similar barns longer stalls resulted in droppings in the stalls.

Plans include a large electric fan at each end of the barn and provision for sprinkling the metal roof to keep the cows cool in hot weather. Sand will be put in the stalls, then straw or old hay, and finally sawdust. "Sawdust will be added,"

said Lou, "but I don't figure the stalls will need cleaning."

The cows get corn silage once a day in winter, with grain on top in the bunk feeder. Hay during this season is fed at 5 pounds per head per day. They still get hay in the summer—about half the winter ration—and beginning in June get greenchopped grass, sudan grass or oats until the silos are filled with corn. Then they get silage until the following June.

In August, average production for the past 12 months was 14,870 pounds of milk per cow from 120 cows. Lou is confident that the average will soon top 15,000 pounds. That's a lot of milk!—H.L.C.

Set Up Your

Retirement Plan

THE SELF-EMPLOYED Individuals Tax Retirement Act, passed by Congress in 1962, makes it possible for the first time for self-employed farm owners—or part-owners—to set up retirement plans with tax-saving features for themselves.

Under this new law, if a self-employed farmer has no regular employees he can draw up plans for himself. If, however, he has regular employees, any plan must include them.

In order to qualify as "self-employed" an individual must participate personally and substantially in the production of income — his income cannot come solely from capital investment. "Earned income" is the key phrase in determining eligibility and the amount of contributions.

For example, the maximum earned income for a self-employed, full-time farmer with substantial capital investment in his business is calculated as follows:

If net profits are—	Maximum earned income is—
\$8,333 or more	30% of net profits
\$2,500 to \$8,333	\$2,500
\$2,500 or less	Same as net profit

An owner's contribution to the retirement fund cannot be more than 10 percent of earned income and, in any case, may not exceed \$2,500.

Half of the owner's contribution to the retirement fund can be subtracted from gross income on his federal income tax return. This amount, plus earnings that accumulate in the retirement fund, is left untaxed until the fund begins to pay benefits.

It's somewhat different when the retirement plan includes workers. In this connection, the farmer can add voluntary contributions for himself, but at a rate no greater than voluntary contributions of other employees. Voluntary contributions are not tax deductible, but taxes on earnings from them are.

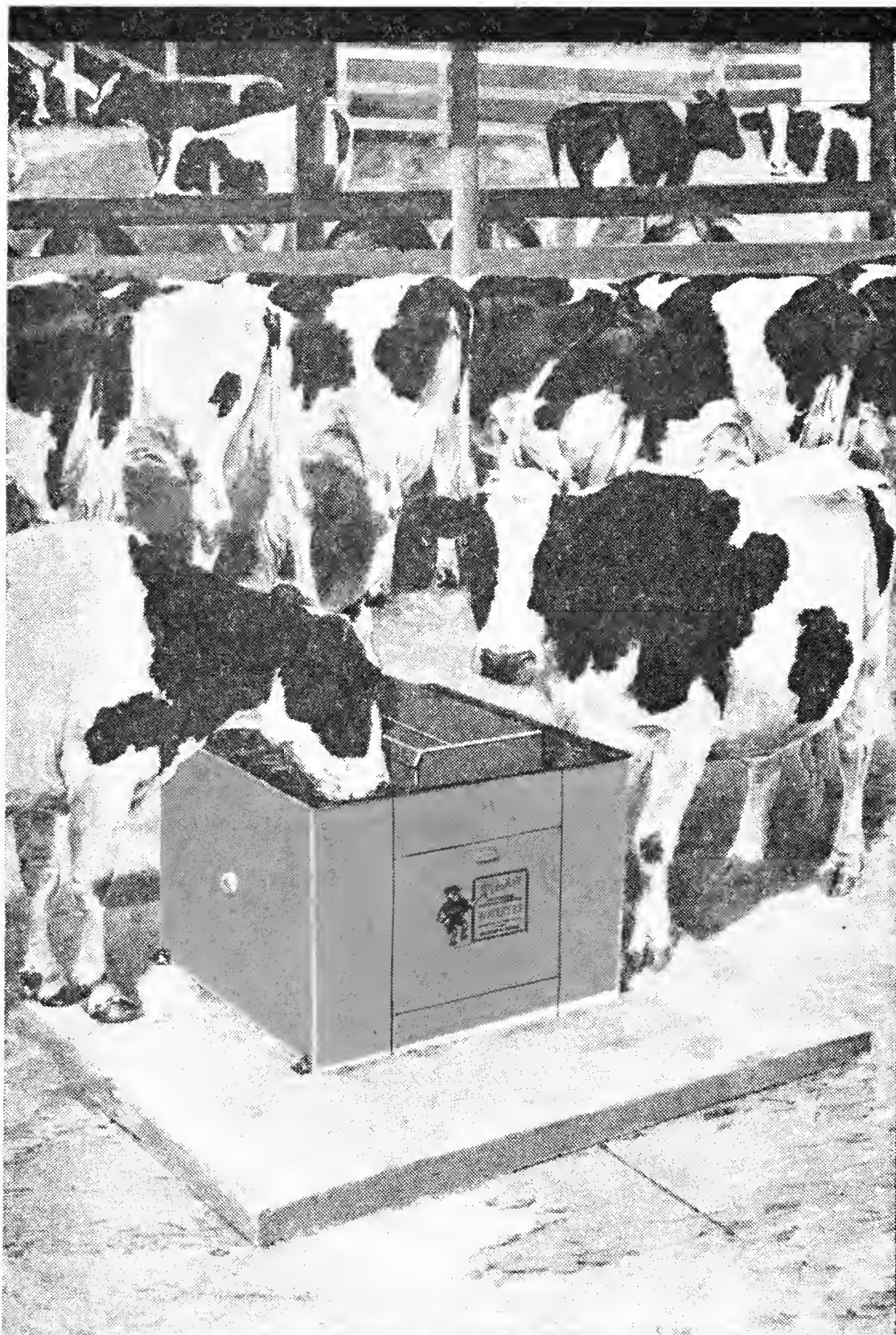
Other major provisions of the Act set forth rules for holding and investing contributions to the retirement fund, and for making payments from it.

N. Y. HORT SOCIETY

(Continued from Page 34)

ers. Adams County, where most of Pennsylvania's fruit is, has been growing apples for a long time, but one would have to look a long time to find an old orchard.

I think they can grow a tree a bit faster than we can in New York, but I was told their trees do not live as long. Nor do they let them live as long! One grower told us that as the trees get older the quality of the fruit goes down, and as soon as that happens he pushes them out and starts a new orchard.



INCREASE YOUR DAIRY PROFITS \$2,310 PER YEAR

New Livestock Book shows how to increase milk and Butterfat production with "Thrifty Ritchie" Waterers

What? Extra dairy profits of \$2,310, by just supplying 30 cows* with temperature-controlled water? Yes, it's not only possible—but is being done every year on many modern dairy farms, where Thrifty Ritchie Waterers have replaced an outmoded, unsanitary water source. Nowhere is a fresh, clean "germ-free" water supply more important than in dairying. If milkers get temperature-regulated water when they want it and how they want it, they will drink as often as 10 times a day. Ritchie Waterers Meet U. S. Public Health Service Recommendations and Grade 'A' Milk Regulations. Write for your FREE copy of Ritchie's new, colorfully illustrated 16 page livestock book. Shows how you can put extra "cream" in your dairy profit picture. The most complete book on automatic watering for all livestock ever offered. You'll find it's valuable reading . . . and profitable, too! (*Example based on 30 cows producing 50 pounds each per day.)

WATER IS YOUR CHEAPEST FEED

GIVE 'EM ALL THEY WANT . . . WHEN THEY WANT IT

HOW THEY WANT IT . . . WITH THRIFTY RITCHIE WATERERS

For 42 years, Ritchie has specialized in making only the finest quality watering equipment. Thrifty Ritchie Waterers work 24 hours a day, unattended. No winter freeze-ups . . . no ice-chopping . . . no sun-drenched, stagnant, bacteria-filled water supply. Your animals get water the way they like it—cool in the summer and ice-free, pipeline-temperature in the winter. Your choice of 72 Ritchie Waterers in 22 models to fit every need. Economical to buy and operate. Excellent sales and service facilities through 50 Ritchie warehouses in 27 states and Canada.



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Let Ritchie help you build a modern, economical, chore-saving watering set up. This valuable book shows how. Write for your FREE copy. No obligation.



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467 Walnut Street

Conrad, Iowa, U.S.A.

SINCE 1921 . . . AMERICA'S MOST COMPLETE LINE OF AUTOMATIC LIVESTOCK WATERERS

BLUE RIBBON RECIPES

(Continued from Page 39)

- 3/4 cup shortening
- 1/2 cup milk
- 1 cup cold mashed potato
- 3 eggs
- 1 1/2 teaspoons vanilla OR 1/4 teaspoon lemon extract
- 1/2 cup seedless raisins
- 1/2 cup chopped nuts

Sift and measure flour; then sift again with sugar, cocoa (if used), baking powder, salt, and spices. With pastry blender or two knives, cut shortening into flour mixture until fine as cornmeal.

Add all at once to flour mixture, milk, potatoes, flavoring, unbeaten eggs, and melted chocolate (if used instead of cocoa). Beat with rotary egg beater until smooth. Stir in nuts and raisins. Pour into two well greased bread tins. Bake in a moderate oven (350°) for 70 minutes or until cake tests done.

Three top prizes were awarded in the **Most Original Peach Recipe Class**. One of these prizes went to Mrs. Paul E. Byers, Route 2, Baldwinville, N. Y., for her entry of Luncheon Special. Following is Mrs. Byers' recipe:

LUNCHEON SPECIAL

- N.Y. State sliced peaches
- 1/4 cup honey
- 2 cups ground cooked ham
- 1/4 cup chopped green pepper
- 1 tablespoon chopped onion
- 1 cup yellow corn meal
- 1 cup flour
- 1/4 cup sugar
- 1/2 teaspoon salt
- 4 teaspoons baking powder
- 1 egg
- 1 cup milk
- 1/4 cup shortening

Cover bottom of casserole with sliced peaches. Pour honey over peaches. Combine ham, pepper, and onion and pat down on top of peaches. Cover with corn meal.

Sift together dry ingredients. Add egg, milk, and shortening and beat until smooth, about 1 minute. Bake at 425° for 20-25 minutes. Unmold on serving plate, and cut in wedges to serve.

A silver tray, awarded by the Empire State Honey Producers' Association, was also received by Mrs. Katherine Cooper of Kennedy, N. Y., for her prize-winning **Quick Bread**

entry. Mrs. Cooper's recipe is given below.

ORANGE HONEY BREAD

- 2 tablespoons shortening, melted
- 1 cup honey
- 1 egg, beaten
- 1 teaspoon lemon juice
- 3/4 cup hot water
- 2 cups flour
- 1/4 teaspoon salt
- 1 teaspoon baking powder
- 1/2 teaspoon baking soda
- 2 teaspoons orange rind

Sift together flour, salt, baking powder, and baking soda. Mix honey, hot water, and shortening. Add liquid mixture to dry ingredients. Add beaten egg, lemon juice, and orange rind. Blend well. Pour into greased loaf pan and bake at 325° for 50-60 minutes. Turn out on wire rack to cool.

The Welch Grape Juice Company, Inc., awarded a silver platter to Mrs. Arlene Yager, 1019 Cold Spring Rd., Liverpool, N. Y., for her entry of Grape Juice Dessert in the **Concord Grape Favorite Class**. Here is the recipe used by Mrs. Yager.

GRAPE JUICE DESSERT

- 1 6 oz. can Welch's Frozen Grape Juice Concentrate, thawed
- 1/4 cup water
- 1 3 oz. box grape flavored gelatin
- 1 8 oz. pkg. cream cheese
- 1 cup sugar
- 1 tsp. lemon juice
- 1 cup heavy cream
- 2 tbsp. Welch's Fruit-of-the-Vine Grape Preserves

CALEDONIA STOCK SHOW

THE 14TH annual "Meat Animal" sale, held at the Empire Stockyards, Caledonia, N. Y. on September 6, brought a total of 363 animals from 15 counties into the auction ring, for a sale total of \$41,176.86. Here are the winners:

The champion 4-H lamb was owned by Charles Fitzpatrick, Wayland; the reserve champion lamb by Terry Slane of Pavilion. Wayne Sage, Warsaw, had the champion pen of lambs, while Kevin Simpson, Caledonia, was owner of the reserve champion pen.

In the hog division, the champion was owned by Michael Poorman, Waterloo, while Diane McColl, LeRoy, had the champion reserve. Champion and reserve 4-H pens were exhibited respectively by Michael Poorman and Laverne Botsford of Scipio Center.

The grand champion 4-H steer was shown by Julie DeTar of Holley. The reserve grand champion steer was exhibited by William Anderson, Albion.

The champion and reserve champion open class single lambs were shown by John Mulligan, Belmont; the champion open class pen of lambs by Shanrock Farms, Wayland, while the reserve champion pen was exhibited by John Mulligan.

Elm Place Angus, Avon, exhibited the champion open class steer; the reserve champion was owned by Lester Pearce, Scipio Center.

The champion open class pen of three steers, and the reserve championship pen were exhibited by Elm Place Angus and Carl House & Son, Caledonia, respectively.

Melvin Olmstead, Holcomb, showed the champion open class hog and also the reserve champion pen, while the reserve champion hog and the champion open class pen award went to LeRoy Poorman.

Combine grape juice and water in saucepan and bring to boiling point. Remove from heat and add gelatin, stirring until dissolved. Cream together cheese and sugar; blend in gelatin mixture. Chill until thick.

Beat heavy cream until thick (reserving 1/3 cup for trim). Stir in lemon juice and fold into grape-cheese mixture. Pour into 9" spring-form pan which has been lined with Nut Crunch Crust, and chill 4 hours. Remove rim of pan. Pipe edges with reserved cream and garnish with grape preserves.

NUT CRUNCH CRUST

- 1 1/4 cups all purpose flour
- 1/4 cup light brown sugar
- 1/2 cup soft butter
- 1/2 cup walnuts, finely chopped

Combine flour and sugar and cut in butter until mixture is very fine. Mix in walnuts. Spread in glass oblong pan (ungreased) and bake 12 minutes in 375° oven. Stir lightly every few minutes during baking time. Cool in pan for five minutes. Pat onto bottom and sides of buttered 9" spring-form pan.

AS I SAW INDIA

(Continued from Page 40)

the villagers voluntarily supplied hand labor, the land required, and whatever material was available locally. The government supplied technical guidance, cement and other needed materials, and made loans at a low rate of interest for equipment. It seemed to us that in India the government must supply these things because there is no other way for such benefits to become available.

In 1955 the "Bharat Krishak Samaj," or Farmers' Forum of India, was organized to study farmers' problems and to protect their interests. This non-political, non-sectarian association formulates national policies to help farmers collectively and promotes an exchange of farmers and their ideas with other countries, as well as within the States of India.

It has persuaded progressive farmers from all parts of India to attend meetings, and then presented the conclusions reached at these meetings to the National and State Governments, always urging that agriculture be not just a way of life, but also a profitable industry. It has sought better transportation rates for farmers' produce, aided in securing better credit terms and promoted agricultural education, thus contributing to a closer unity among farmers.

It is the Farmers' Forum that works closely with Farmers and World Affairs, Inc., 1201 Chestnut St., Philadelphia 7, Pa., for an exchange of farmers and agricultural leaders, with their aim, "Peace Through Mutual Understanding." From their experiences of living close to nature and working the land, these people learn to understand each other's needs and problems and build friendships based on mutual respect and interest.

Now that we are back in America, we hope to share our experiences with others, as the former groups in this program are doing. Thus a segment of our citizens may gain a sympathetic insight of India's people and their problems, and a real desire to assist them and other underdeveloped countries in helping themselves.



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PACK-O-FUN is edited specifically for HOBBY CRAFTERS, TEACHERS, DEN MOTHERS, GROUP LEADERS, CHURCH WORKERS, THERAPISTS and ENTIRE FAMILIES.



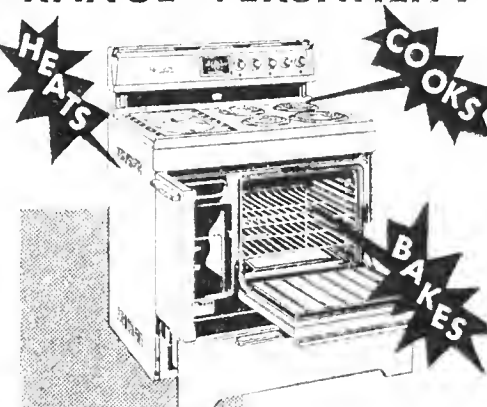
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Monarch electric combination range offers new all 'round kitchen efficiency—it cooks, bakes, heats. Features include stylish mantel back, full complement of automatic controls, giant 6726.9 cu. in. oven, super speed surface unit electric section, and heater section for added warmth and cooking.

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Dr. Naylor's DIRENE

ADDITIONAL CLASSIFIED ADS

(Continued from Page 37)

AUTOMOTIVE

RAMBLER STATION WAGONS. 1961, 1960, 1959, 1958, 1956 automatics and standard shifts. Popular colors. Top condition. Phil Gardiner Rambler Mullica Hill, N. J. -- 1/2 hour from you.

PHIL HAS DONE IT AGAIN. People sent best kind of people to buy Ramblers from me, so I have thirty extra good cars, traded from respectable people who took care of them. I cannot sell them ten cents on the dollar. I can accept meager down payments and extra months to pay, if you always pay. I will offer Bank Financing. I will take trade-ins of any kind including land. I do extend innumerable years to folks who give me a first or 2nd mortgage. While they last, offer your price and terms on 1958, 1959, 1960, 1961, 1962 Ramblers, Fords, Chevrolets, Plymouths, Dodges, Volkswagens, Oldsmobiles, Pontiacs and others. Station wagons, sedans older at \$65.00 up. Conveniently located 1/2 hour from you at Mullica Hill, N. J. Close to Turnpike Exit 2. Phil Gardiner -- Rambler -- Used cars -- tractors -- twine. Phil will do it for you. GRidley 8-6291.

TRAVEL

HERE'S A TOUR so good that we give a written guaranty! Our 19 day, 10,000 mile Grand Circle Western Tour, 18 States, 5 Canadian Provinces, plus a visit to Old Mexico. See Grand Canyon, Boulder Dam, Las Vegas, Hollywood, Giant Redwoods; visit British Columbia, cross the Canadian Rockies and see Lake Louise by scenic bus in June, July and August 1964. But you must reserve early. The price is only \$339.00! Send now for free literature and start anticipating. Shanly International Corporation, 528-A Blue Cross Building, Buffalo 2, New York.



ED EASTMAN'S PAGE



WOMAN'S VOTE WINNERS

ON MY PAGE in our August issue I offered my personal check for \$5 for the best letter that would help me to prove that woman suffrage has been worthwhile. Many interesting letters were received and turned over to an impartial judge. Unfortunately, my space is so limited that I can print only the winning letter and one other which, in our opinion, is certainly worth honorable mention. Here they are:

First Prize

Laura B. Chapman

Perhaps the fact that the Iroquois women sat on war councils with their men is the reason the struggle for woman suffrage started in this same locality over 100 years ago.

I, too, am of the Lake Country, and the blood of a redhaired grandmother who marched with Susan B. Anthony flows in my veins.

An old woman now, I am proud that in my youth I trained under Carrie Chapman Catt, and marched and worked and spoke on many a street corner for woman suffrage.

I have lived to see our polls made a decent meeting place instead of the corner saloon, protection of women's property rights, laws to protect working women and children, and many other changes for the better.

I do not credit all the improvements that have come in the last 40 years entirely to the women's vote, but our politicians know they have to produce to hold the women's vote. There are numerous organizations, non-partisan, such as the League of Women Voters, who study and know what is going on.

Surely the fair sex that fill our churches have added a spiritual note to our electorate. A woman's viewpoint is as essential in government as it is in a well-run home.

Honorable Mention

Mrs. Frank Vaughn

There is no doubt woman's vote has improved the political, economic, social, and spiritual life of our nation. The woman in the house has more time to read and study the platforms of the men seeking office, and thus is better informed on the issues.

Much of our economic program is geared to woman's thinking, since she usually handles the money and makes the purchases. Because she has the vote, it helps reduce exorbitant spending along many lines.

The greatest improvement has been in our social and spiritual life. Mother and father on equal basis sharing, together with the children, the joys of our freedom and the

problems of our government, have helped bring about a oneness in our families and a social equality that is truly uplifting.

Sharing our joys, our problems, and our ideals tends to improve our spiritual lives. Since no nation is better or stronger than its individual families, so our nation is improved. It has been said, "Educate a man and you train an individual. Educate a woman and you raise a nation." Who can question that woman's vote has not improved our country?

THE CHANGING COUNTRYSIDE

Have you noticed how much the appearance of our whole countryside has changed even in the last twenty-five years? These changes are rapidly continuing.

The high barns—once necessary to store loose grain and hay—are rapidly being replaced by low ones. One-third of the barns have run-

ning water, and over half have electricity.

Almost every new home is a one-story bungalow or ranch type.

Small farms are being replaced by big ones. Yet the actual rural population is just as large as it ever was because non-farmers, through modern transportation, have found it possible to enjoy many of the advantages of country life and still work in the city.

I regret some of these changes brought about with the disappearance of the small family farm, even though they have greatly increased the value of country real estate and valuations for tax purposes, and made it possible to have better school facilities and other modern conveniences.

I often wonder what Grandpa and Grandma would think if they returned to their old farm neighborhood and saw the modern farm and home equipment and buildings, and how the cities have rapidly sprawled out into the country.

WHY HE COULD SLEEP

Sometimes a simple little story drives home a moral better than a long essay. Jim Hall of American Agriculturist tells the story of the man who applied for work on a farm. He was asked:

"Do you have any recommendations?"

His simple answer was, "I sleep well at night."

The farmer hired him without

recommendations. Several weeks elapsed, then one night a terrible storm arose. The owner tossed and turned because he feared that the hired man might have left the barn doors unlocked and there would be great damage. Unable to sleep, he arose and went to the barn, but found everything in good order.

The hired man could sleep well because he had done carefully the work which had been entrusted to him!

AN EGG A DAY

How many eggs are you eating in a year? On the average, Americans eat 325 per capita. You are cheating yourself if you are below that, because from a health standpoint, next to milk, eggs are the most important food in our diet. Not only that — eggs are second only to dairy products in farm income for Northeastern farmers. So, if you eat at least an egg a day, you can help yourself and help others.

The Pennsylvania Medical Society has the following to say about the value of eggs as a food:

"They are essentially a high quality protein food, rich in iron, phosphorus, fat, vitamins A and G. They are easily digested. The yolk is one of the first foods added to the diet of infants to supply iron. The yolk is a better food element than the white. Unlike most other foods, nature protects eggs from contamination by the shell. Like apples, an egg a day will keep doctors away."

BORN TO IT

Because I grew up in the horse and buggy days, I never was a good farm mechanic. Young farmers now are born to it.

If you do not have the know-how and the experience acquired early in life to make minor repairs and adjustments on your machinery, the chances are good that you will not succeed as a farmer in this modern mechanical age. It is obvious that when a machine breaks down or needs adjustment right in the middle of an operation you cannot afford to take the time or spend the money to get a repairman from town!

Therefore, every young man who intends to farm should take at least a short course in farm mechanics.

EASTMAN'S CHESTNUT

During the last two academic years, I have acted as a counsel to the students of Ithaca College. From this experience, I know that the reason so many college students fail is that they are not enthusiastically interested in going to college at all, or in the particular courses they are pursuing. This story illustrates the point.

A friend asked John why he came to college. "You're not studying," he said.

"Well," said John, "I don't know exactly. My mother said it is to help me to become president of the United States; Uncle Bill said it's to sow my wild oats; my young brother said it's to get me out of his hair so he can have his room to himself; Sister says it's to bring home a chum for her to marry; and Dad said it's to bankrupt the whole darn family!"



Potato yields like this one on the Clark potato farm at Richford, New York (more than 450 bushels per acre) would have astonished my father, who thought 125 bushels was a big yield when I was a boy. Although bags have now replaced barrels on this farm, barrels are still used in some potato sections. See article on page 33.

OCTOBER

I'm always a little sad with the passing of summer, and feel like throwing my arms around it and holding it forever, but I really know that all of us would grow tired of summer if we had it all the time. The changing seasons of this north temperate zone add much to our success and happiness, providing we're wise enough to see the good in each season.

Take fall, for example. What can give one more of a lift of the spirit than to stand, as I did the other day, on the top of a high hill and

look out across the hills and valleys, stretching on and on in every direction? A blue haze hung over the hills; the colors had just begun to change, and the blaze and glory of the reds and golds contrasted with the green of the fields and the evergreen trees. Nothing broke the silence but the chirp of insects, and over all was the soft, mellow light of the October sun.

At such a time, the aches and pains of the hurrying years, and all the problems of these modern times vanish. It's good to be alive.



SERVICE BUREAU

HOW TO POST

BECAUSE we receive many inquiries about posting at this time of year, we are printing the following requirements for posting legally, according to the New York State Fish and Game Law:

1. "No Trespassing" signs must be not less than 11 inches square, and must be placed along the entire boundary of land, including a sign on each corner, at distances of 40 rods apart or less. The printing, exclusive of the name and address, must cover at least 80 square inches.
2. Illegible or destroyed signs shall be replaced at least once each year during the months of March, July, August or September.
3. It is an infraction for any person to injure, deface or remove a "No Trespassing" sign from your property.
4. It is an infraction for any person to trespass on your property after it is posted, to hunt or fish, or to go on the property with a rod or gun.
5. The violation of any provision of the No Trespassing Law in New York State makes the trespasser liable to a fine of from \$10 to \$200, plus the cost of legal action, plus pay for any damage he may have done.
6. It is the duty of State Police, Game Protectors, and all police officers to enforce the provisions, although the person posting can make an arrest if he witnesses the trespass.
7. Signs must contain the name and address of the person posting. Use waterproof ink.

(For information on posting legally in states other than New York, consult your State Conservation Department.)

You may write to the New York State Conservation Department, Albany, New York, for printed blank forms for granting consent to hunt or fish on your land.

It has been our experience that many landowners who post their land as a safety precaution are very willing to grant permission to responsible hunters who check with them first. It is for the protection of their property, their livestock, and themselves, that they ask hunters to do this.

SOCIAL SECURITY

The publisher of a book which is being widely advertised as containing exclusive information and "tips" on "How to get twice as much social security," states that his book has been cleared for accuracy "with the highest legal authority on the

subject to social security benefit claims."

According to Donald C. Wilber, Social Security district manager at Elmira, N. Y., this book has not been cleared by the Social Security Administration. In fact, he warns that following some of the "tips" might do more harm than good.

There are many reliable privately published books about social security, and the publishers of these books perform a service in helping the Social Security Administration to inform people about their rights and responsibilities under the Social Security Law. If you have a question concerning the reliability of one of these books, ask your Social Security office about it.

MEMORIAL

"I recently purchased a cemetery monument from an out-of-town agent and later found that I could have purchased the same stone from a local dealer for \$100.00 less. Do you think I could get an adjustment on the cost?"

We wrote the company and they told us that prices on this particular line are pretty strictly controlled. However, they say that the cost for different types of lettering varies according to design, and that this is what affected the price our subscriber paid.

Since the monument is already installed and paid for, it is too late for any compromise. Before making a decision on any important purchase, it is always wise to make price comparisons.

MORE ABOUT NUTRIA

According to the Better Business Bureau of Western New York bulletin, the Cabana Nutria Breeders Association has recently filed bankruptcy. They say, "Postal Authorities report that some 4,000 persons invested over \$3 million in this promotion."

Fortunately, because of the considerable controversy over the merits of nutria raising, AMERICAN AGRICULTURIST refused some time ago to accept their advertising.

CAN YOU HELP?

Mrs. Mabel Jackson, 157 State St., Lowville, N. Y., would like the poem, "The Skeptic's Daughter."

Edward M. Lotridge, a subscriber who lives at 1511 N. Main Street, Tulsa 6, Oklahoma, would like to contact someone who has available some of the C. A. Stephens' books.

Mrs. Hilda Garneau, Rt. 1, Vergennes, Vt., would like directions for a daisy crocheted bedspread.

ADDRESSES WANTED

William Adams, who formerly worked as a glass blower in Goshen, N. Y., and when last heard from was in Connecticut.

Edna and Debra Brann, formerly of Whitefield, Maine. Their oldest sister is trying to locate them.

E. O. Phillips, well driller, formerly of Grand Valley, Pa., whose last known address was Shelby, N. C.

Mr. Manuel Starr, formerly of 585 N. Delaware St., Paulsboro, N. J.

Keep All of Your Policies Renewed

- ✓ Because of today's high cost of medical care and the need of income when laid up unable to work. It takes more than one policy to protect you these days.
- ✓ Because payments are made from all of your North American policies as they provide. They pay in addition to any other plan.
- ✓ Because some of your policies increase in value at renewal time—accidental loss of life, limbs and sight benefits build up.
- ✓ Because a combination of North American policies provide broad protection at a reasonable cost.

SOME BENEFITS RECENTLY PAID

A friend's name may be in this list.

Gerd Remmers, Berne, N. Y.	398.57	Lewis Martindale, Milford, N. Y.	1001.83
Auto accident—neck		Caught hand in field chopper—lost fingers on hand	
Wesley Irish, Freedom, N. Y.	293.48	George Scott, Hoosick Falls, N. Y.	434.03
Auto accident—broke collar bone, injured shoulder		Pedestrian—broke shoulder	
Eugene R. Newman, Deposit, N. Y.	140.62	Leta M. Hurlbut, Gouverneur, N. Y.	280.66
As came down on hand—neck		Tripped over chair—neck	
Richard Edmunds, Freedom, N. Y.	215.40	Lawrence Dunn, Lisbon, N. Y.	250.75
Playing football—neck		Auto accident—broke ribs, jaw, cut lip	
Harold Matthews, Sterling, N. Y.	658.97	Dale Lowery, Hammond, N. Y.	373.03
Fell—broke leg		Struck by knob—broke ribs, injured knee	
Charles Craine, Red Creek, N. Y.	893.76	William Griessler, Delanson, N. Y.	121.00
Caught hand in corn picker—severely injured hand		Shipped & hit spreader—broke tooth	
Fred Pace, Falconer, N. Y.	598.71	Robert Kimball, Middleburg, N. Y.	1070.00
Slipped & fell off tractor—neck & shoulder		Back injury	
Theresa Janiseb, Forestville, N. Y.	591.25	Edward R. Powell, Interlaken, N. Y.	1729.40
Auto accident—neck		Caught hand in corn picker—lost hand	
Edwin Kesselring, Van Etten, N. Y.	112.50	Ruby Tobey, Pine City, N. Y.	264.29
Caught in power take-off on tractor—neck ribs & side		Tractor tipped over—neck, arm, head, neck, back	
Lawrence Frink, Greene, N. Y.	844.85	Charles Patrick, Jamesport, L. I., N. Y.	284.25
Dropped to catwalk—neck		Fell from ladder—neck, shoulder, ribs & hip	
Casper J. Mauzy, Cortland, N. Y.	198.14	Ruth Koberlein, Swan Lake, N. Y.	278.00
Caught finger in saw—lost end of finger		Shipped & fell—neck	
Leland Davis, Cortland, N. Y.	272.33	Harry Campbell, Nichols, N. Y.	561.06
Slipped getting off hay wagon—internal injuries		Hit by ax—neck	
Julia Osbeck, Cortland, N. Y.	378.21	Ellen Bunk, Ludlowville, N. Y.	211.28
Fell—broke ankle		Fell getting out of car—neck	
Nellie Hooker, Fraser, N. Y.	366.42	Howard Kessler, Watworth, N. Y.	526.44
Auto accident—neck, hip & knee		Kicked by cow—severe injury to knee	
Walter DuBray, Ellenburg Depot, N. Y.	122.22	Robert Tucker, Arcade, N. Y.	270.14
Pinned between milkhouse & tractor—broke ribs		Thrown by heifer—neck injury	
Fred A. LaGoy, Cadyville, N. Y.	393.73	Gerald Tubbs, Penn Yan, N. Y.	121.07
Slipped & fell—neck		Fell off chair—broke wrist	
William Brunese, Millerton, N. Y.	653.81	Harold F. Jones, Blairstown, N. J.	190.00
Hit by beam—broke leg, injured back		Draw bar on tractor—broke rib	
Leland Wiedemann, Springville, N. Y.	402.30	Steve Molnar, Phillipsburg, N. J.	103.72
Twisted knee—neck		Fell from tractor—neck	
Julia E. Joyce, Johnstown, N. Y.	972.27	Norman DeVries, Newton, N. J.	137.86
Fell—badly broken leg		Caught finger in field chopper—lost finger	
Rose Amend, Corfu, N. Y.	1600.00	Elvin B. Strickland, Freehold, N. J.	125.00
Auto accident—broke leg & arm		Slipped—neck, shoulder, arm & neck	
Dean F. Ivison, South Byron, N. Y.	207.84	J. P. Mebaffey, Bridgeton, N. J.	146.43
Fell off wagon—broke wrists		Slipped & fell—neck	
Edward Czek, Richfield Springs, N. Y.	208.20	John Milebanoski, Bell Mead, N. J.	425.85
Unloading hay—internal injuries		Tail gate on truck fell—internal injuries	
Clinton Edick, Turin, N. Y.	561.50	Ferne C. Frantz, Steventown, Pa.	711.42
Fell from farm truck—neck		Auto accident—whiplash neck	
Kenneth Sanford, Sr., LaFargeville, N. Y.	820.63	Dean E. McKay, Mansfield, Pa.	440.00
Struck by horse—neck, cuts, bruises		Fell from horse—neck	
Bruce E. Young, Glenfield, N. Y.	295.92	Harold B. Chamberlain, Mansfield, Pa.	328.30
Cartridge exploded in hand—severely injured hand		Fell while loading truck—internal injuries	
Elmer Petzoldt, Castorland, N. Y.	750.00	Lyl Johnson, Corry, Pa.	1354.80
Thrown by cow—neck		Thrown off tractor—broke ribs, neck, multiple cuts	
Donald Lehman, Copenhagen, N. Y.	1445.45	Wilbur H. Hayes, Edinboro, Pa.	862.50
Cow jumped on knee—severe neck injury		Knocked down by cow—severe back injury	
Roger Smith, Lima, N. Y.	1074.62	Fred Hopson, Union City, Pa.	160.00
Pushed by cow—badly injured knee		Fell down stairs—broke ribs	
Fannie H. Palmer, DeRuyter, N. Y.	793.71	John Schlasta, Sr., Jermyn, Pa.	400.00
Caught hand in press—severe injury to hand		Kicked by cow—neck, back	
Ben Smith, Rochester, N. Y.	434.28	Robert Larue Brown, Biglerville, Pa.	214.28
Auto accident—concussion, injured neck, back, forehead		Truck Accident—broke jaw, bruises of face	
Ralph O. Moore, Johnstown, N. Y.	634.82	Walter Padwa, Pleasant Mt., Pa.	167.86
Fell from ladder—neck		Kicked by cow—bruised arm	
Carl Gross, N. Tonawanda, N. Y.	514.28	Charles Sadoski, S. Deerfield, Mass.	176.98
Auto accident—cut lip, broke jaw, teeth		Tripped injured leg & hip	
Vere Salm, Vernon Center, N. Y.	1221.90	Herbert H. Peel, So. Deerfield, Mass.	1282.14
Crushed by cow—neck		Auto accident—broke arm, cut face	
Anna Bell Koerber, Brewerton, N. Y.	562.00	Clarissa Cappella, Chelmsford, Mass.	120.00
Auto accident—neck & shoulder		Fell off tractor—broke ankle, bruised knee & leg	
Marshall Trapp, Syracuse, N. Y.	1475.00	R. H. Esaney, Sr., New Gloucester, Me.	143.00
Fell off wagon—neck		Kicked plywood—twisted & broke leg	
John Brahm, Jr., Naples, N. Y.	359.13	Charles Cooper, Buckfield, Me.	299.20
Auto accident—multiple cuts & bruises		Thrown from tractor—broke elbow, injured shoulder, chest & arms	
John Lorenzo, Montgomery, N. Y.	1115.00	Helen Sullivan, Concord, N. H.	423.55
Auto accident—fractured hip, multiple cuts & bruises		Pedestrian, bruises of head & face	
Arthur C. Watts, Medina, N. Y.	110.25	Virginia Perkins, Charlotte, Vt.	227.06
Tripped & fell—neck, shoulder, broke wrist		Auto accident—neck & back, bruises	
Charles Mattison, Sr., Altmar, N. Y.	333.00	Henry Alexander, Pittsford, Vt.	115.00
Fell from truck—neck		Bale of hay fell on injured, injured back	
		Walter E. Battles, Randolph, Vt.	300.00
		Kicked by cow—broke bone in face, injured ear	

NORTH AMERICAN ACCIDENT INSURANCE COMPANY

(In New York State)

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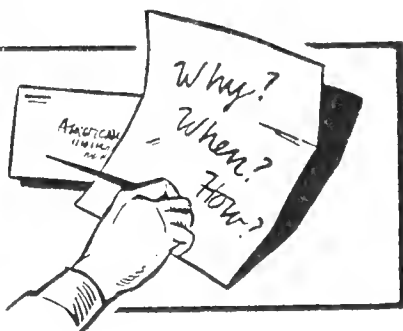
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SAVINGS BANK BUILDING

ITHACA, N. Y.

SERVICE BUREAU CLAIMS RECENTLY SETTLED	
NEW YORK	
Mrs. Robert Peterson, Lowville	\$ 3.98
(refund on tree)	
Miss Betty O'Connell, Albion35
(refund on order)	
Mr. Joseph Weaver, Savannah	7.00
(refund on bullets)	
Mrs. Leonard W. Borden, Franklinville	6.00
(refund on bullet)	
Miss Dorothy V. Dennis, Candor	6.98
(refund on uniform)	
Mrs. George Kramer, Eastport	162.50
(payment for letter)	
PENNSYLVANIA	
Mrs. A. B. Snell, Montross	40.00
(refund on premium)	
Mr. George Hamilton, Genesee	516.00
(payment for potatoes)	
Mr. Dewitt C. Wilcox, Monroeton	10.00
(refund on trees)	
MAINE	
Mrs. Walter Wood, Belfast	5.95
(refund on kit)	
Mrs. A. J. Verrill, West Paris	20.00
(payment for antiques)	
MASSACHUSETTS	
Mr. Reino A. Liiimatainen	38.10
(payment for syrup)	

The QUESTION ? BOX



I am interested in learning more about any dairy pools that might exist in New York State. What are the possibilities for renting dairy cattle to another dairyman?

I do not know of any dairy pools in New York State. You may recall a few years ago there was considerable publicity given to some dairy

cow pools tried in the Middle West. You may also have read that the pool which received the most publicity is no longer operating—it was not successful financially.

If you have a herd that you would be interested in letting out, you might find some farmer who needed to enlarge his herd and

would be interested in renting the cows. This is done occasionally. For the most part, it is with individuals who are acquainted with each other.

As a rule, the herd is rented on a cash rent basis. The rent should be enough to cover the depreciation on the cow, interest on the investment, insurance on the animal, and the cash costs paid by the owner. The arrangements for cash costs vary from situation to situation. For example, in some cases the owner pays the breeding fees and in turn get the calf. In other cases, the renter pays the breeding fees and gets the calf. In other instances, the Vet bill is paid by the owner. These are usually negotiated items.

Rental of dairy animals is not

common. As you might readily guess, there are many complications which may arise. For example, there is the question of the type of care given to the animal. Also, there is always the matter of the health and any losses which may occur.—*Prof. C. A. Bratton, Cornell University*

What is the simplest way to figure depreciation of farm equipment for income tax purposes?

The majority of farmers, I believe use what is called the straight line method. They estimate the useful life of a piece of equipment (for example, 10 years) and then depreciate 10% a year less its estimated salvage value.

What changes in sewage disposal should be made if a garbage disposal unit is added?

While I am not aware of any specific research on this subject, a common rule of thumb is to double the septic tank size and increase the disposal field by at least 25 percent. If your drainage area is, or is planned to be, in clay or tight soil, you must take particular care with any septic tank system. Adding a garbage disposal unit simply magnifies the problem.—*E. W. Foss, Cornell University*

Can anti-freeze cause engines to "set up?"

Many (but I believe not all) of the permanent antifreeze products have a glycerine base. If engine gaskets become loose and some of this antifreeze product contaminates the oil, combustion of the oil and glycerine product can cause an engine to "set up."

The main precaution to take is to be sure that leakage does not occur. This requires regular checking of all engine bolts for tightness to prevent gasket leaks. It is also becoming standard practice to use some form of anti-leak compound to be placed in the cooling system. This would prevent both the visible leaks in the radiator and also the less obvious ones that might occur within the engine.—*Prof. E. W. Foss, Cornell University*

I have two six weeks old bull calves. When should they be castrated, and at what age should I start teaching them to work as an ox?

We recommend to our beef producers that calves that are to be castrated should be steered before they are two or three months old. It is easier on the calf at that time, and also is less work to the operator. In other words, your six weeks old calf is old enough to be castrated at the present time.

If you plan to use these calves as oxen at a later date, it is possible that you might want to let them develop until they are six to eight months old before castrating them. This will give them an opportunity to develop some of their secondary sexual characteristics a little more.

For more information on developing oxen, breaking them to work, harness, etc., I am going to suggest that you get in touch with Mr. Franklin W. Streeter, Double "F" Hereford Farm, Route 9, Main Street, Cummington, Massachusetts. Mr. Streeter has several yoke of oxen which he uses in pulling contests, and is very familiar with this subject. I am sure he will be glad to send you information on this subject.—*Professor M. D. Lacy, Cornell University*

Let's look at these money savers up close, starting at the top: The MAC 15, new chain saw cutting champ for farm, forest, home, camp, with McCulloch high quality features, yet priced down low. The 200, with fingertip controls, automatic rewind starter, four-shoe safety clutch; cuts at all angles, even overhead and sideways. The 250 features fingertip primer for fast starts in any temperature; extra cylinder port increases power for heavy-duty felling and land-clearing. The 380 does the big jobs—fells trees up to 60" in diameter, limbs and bucks like a pro; insulated fuel tank with vented cap; ball bearing crankshaft and needle bearing clutch. See all four of these dependable direct-drives at your McCulloch dealer's. Pick the model and price best for you and save yourself some saw bucks!

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NOVEMBER 1963

American Agriculturist

MISINFORMATION LEADS TO MISUNDERSTANDING

What are the facts about northeastern agriculture? How can these facts be more effectively brought to the attention of non-farmers? Here are some answers to these questions.

**WALL OF
MISINFORMATION**

MILK COSTS
ARE TOO
HIGH

FARMING IS
A DYING
INDUSTRY

FARMERS
ARE ALL
SUBSIDIZED



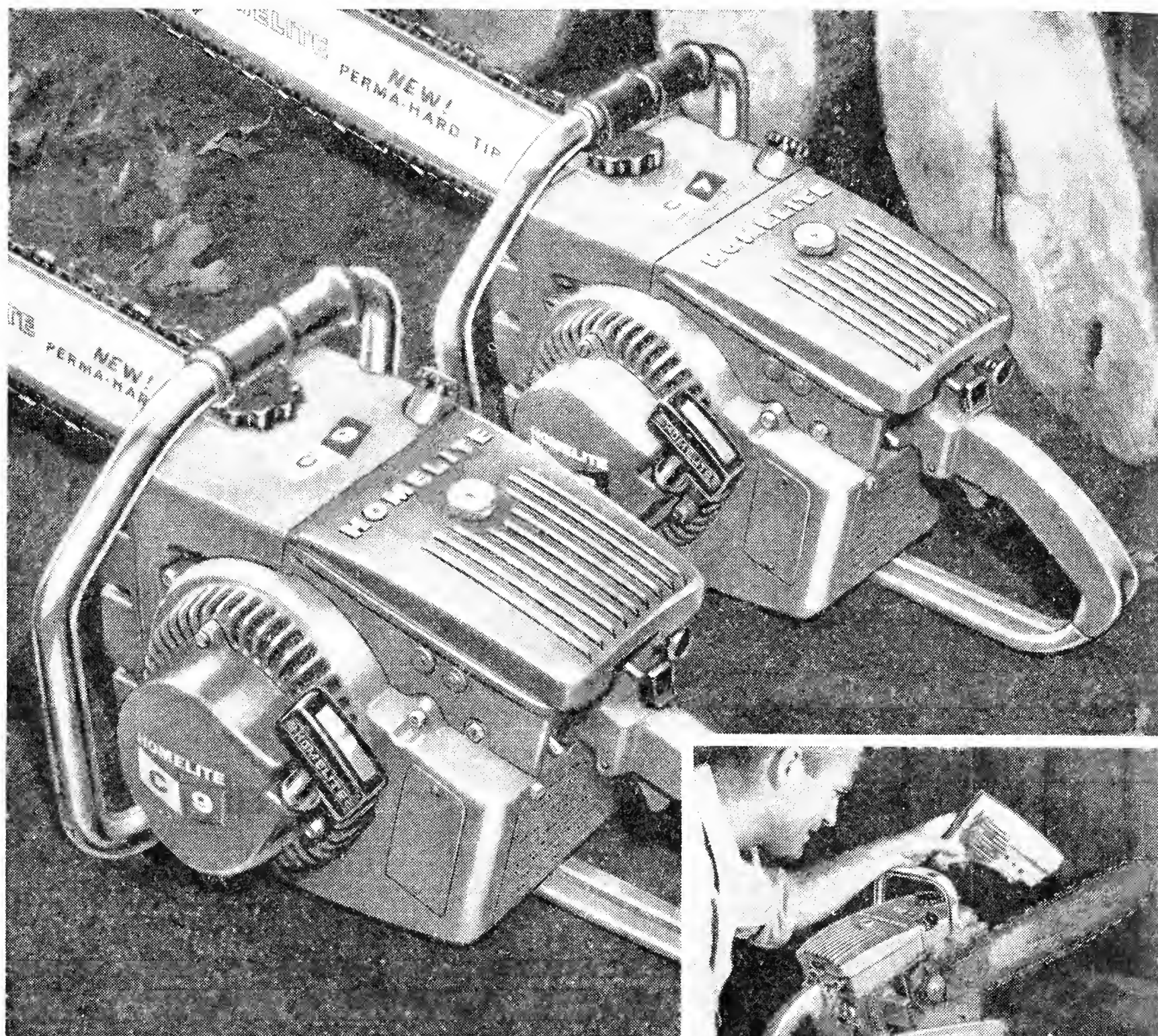
SIXTEENTH FORUM OF BUSINESS AND AGRICULTURE

See Your Homelite Dealer

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Addison—Addison Farm Equip. Co. 121 E. Front St.
Akron—Blew Equipment Co., 32-42 Mechanic St.
Albion—Bentley Brothers, RFD 2
Amsterdam—Joe Bazaar's Machine Shop, RD 2
Angelica—Herbert L. Wagner, Dalton Rd., RD 1
Arkport—Francis Gowinski, RD 1
Auburn—Evans & Lind, Route 6
Avon—Webb Implement Co.
Bainbridge—Carlton Loomis, Brackett Lake Rd.
Baldwin—Home Owner's Tr. Rntl. Inc. 500 Merrick Rd.
Ballston Spa—Perrino Implement & Tractor, RD 4
Bath—Bath Truck & Tractor Co., Inc.
Bedford Hills—H. A. Stein Tractor & Equipment Co.
No. Bedford Rd.
Belfast—Grasfort & Guilford, Main St.
Belleville—Maurice L. Herron
Blasdell—Monarch Sales & Dist. Co. 4281 S. Pk. Ave.
Blooming Grove—W. H. Rudolph, Inc.
Bolivar—Bolivar Magneto Co., 65 Wellsville St.
Bradford—Fleet's On Lake Lamoka
Brewster—The Powerhouse, Route 6
Briarcliff—Wallace J. Scott, Jr., Route 100
Buffalo—Pilgrim Equipment Co., 3989 Transit Rd.
Callicoon—John H. Eschenberg, Route 17-B
Camden—Willard Road, 15 Harden Rd.
Canandaigua—Aldrich Farm Equipment, RD 2
Canastota—Alfred A. Patano
Canisteo—Olson Equipment, 58-62 Depot St.
Conklin—Ray E. Goodell, R.D. #1
Carmel—Carmel Lumber, Rep., Fowler Ave. (Red Barn)
Carmel—Nichols Hardware, Inc., Main St.
Center Moriches, L. I.—Savage Hardware, 383 Main
Chaffee—Howard Ellis, Allen Rd. RFD
Champlain—Raymond Bedard
Chatham—Chatham Machine Shop,
Rte 203 Church St. Ext.
Churchville—M. E. Fairbanks
Cincinnati—A. B. Brown Co.
Clarence—Williams Tree Surgeons, Town Line Rd.
Clinton—Clinton Tractor & Impl. Co., Inc., Meadow St.
Coeymans—Baisdell's Repair Shop, Westerlo St.
Cold Spring—Cold Spring Service Center
Chestnut St.—Route 20
Conklin—Ray E. Goodell, RD #1
Cooperstown—Earl C. Chase & Sons, Inc.
Cooperstown—Western Auto Associates, 167 Main
Cranberry Lake—Cranberry Lake Inn Marina
Croton-On-Hudson—Zoller's Ser., 87 N. Riverside Ave.
Crown Point—Crown Garage, Route 9
Dansville—K. G. Richmond, 22 Ossian St.
Deer River—Francis Nicholl, Saw Mill Road
Delhi—Delhi Farm Equipment Co., 23 Elm St.
Deposit—Edwin Hodam, Jr., Route 10
Downsville—Joseph Capaldo, Route 206
Duaneburg—Berical's Equipment Co., RD 1
E. Aurora—Aurora Sporting Goods, 170 W. Main St.
E. Aurora—Star Landscape, 7540 Seneca St.
E. Palmyra—J. J. O'Meara
E. Pembroke—Ron & Neuts Sales & Service
Elmira—Cory's Hardware Co., 1548 Lower Maple Ave.
Elmsford—County Power Tool Co., 625 Wht. Plains Rd.
Erieville—Magee's Service
Fairport—Knapp & Trau
Falconer—Schutt's Saw & Mwr. Shop, 135 S. Work St.
Fishers Island—Home Appliance Center, P.O. Box G
Franklinville—Len's Shop, 10 Green St.
Fredonia—Fredonia Farm Supply, McAllister Rd.
Fulton—Harold Burton, 202 Division St.
Garden City—Worth Sup. Co. 270 Nassau Blvd. So.
Gasport—C. J. Perry & Sons, Inc.
Geneva—C. M. Nielson & Son, Inc., 481 Hamilton St.
Germantown—Capitol Valley Cutters, Inc. Blue Stores
Getzville—H. & E. Motors, 530 Dodge Rd.
Glen Head—Countryside Enterprises, Inc.
691 Greenvale—Glen Cove Hwy.
Glens Falls—Burton Equipment Co., Upper Glen St.
Gouverneur—NESCO (Northern Eng. & Sup. Co.) R.D. 5
Gowanda—Gowanda-Harley Davidson Sales,
Zoar Rd.—RFD 1
Great Neck—Gregory Coal & Lumber Co., Inc.
30 Cutter Mill Rd.
Great Valley—David J. Davies, Sugar Town Rd.
Greenwich—L. G. Collins, RFD 1
Hicksville—Red Fox Mower & Equip., Inc.
510 Old Country Rd.
Hillsdale—Hillsdale Farm Supply, Inc.
Holland—Lewis Machinery Service, Phillips Rd.
Homer—Home & Gdn. Ctr. 209-211 Sacandaga Rd.
Horseneads—Hansen's Sales & Service, Route 3
Hudson—Bame's Marine Supply, 190 Fairview Ave.
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152 W. Jericho Turnpike
Hion—Burrill Saw & Tool Works, 401 East Main St.
Ithaca—Valley Fixit Shop, 363 Elmira Road
Jericho—L. I. Co. Cutters, Equip. Corp., 81 VII Dr.
Johnsbury—Walter Pope, RFD
Johnson City—Oakdale Equipment, 716 Harry L. Drive
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P.O. Box 16
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Kenmore—Kenmore Renting Co., 1297 Kenmore Ave.
Lake Luzerne—Lloyd S. Hall, Bay St.
Lake Pleasant—Wight's Essc Station
Lee Center—Stokes Chain Saw Service, Route 26
Leeds—Peter Suttmeier, Sandy Plains Rd.
Liberty—Gerow Brothers
Long Eddy—Malcolm Crawford, P. O. Box 66
Malone—Elliott & Hutchins, Inc.
Margaretville—Fairbairn Lumber Corporation
Marlboro—States Sales Sons Inc., Route 3W
Massena—Douglas La Point, Route 1
Mayfield—Peter Johnson, Route 1, Mountain Ave.
Mechanicville—Brenn's Lawnmower & Engine Shop
Route 2
Mendon—Saxby Implement Corp.
Middleburgh—River Imp. Co. Inc., Middle Fort Rd.
Middletown—H. L. Ayres, P.O. Box 187
Millerton—Brewer's Mower Sales & Ser., Sharon Rd.
Moosy—John W. Knapp, Route 59, P.O. Box 105
Moravia—Kilborne Brothers
Moravia—LaVerne Marks, 34 Center St.
Morrisville—Ralph Pashley, P.O. Box 432
Naples—Francis Bills Garage, Route 1
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183 Smithtown Rd.
Newark—Gerry's Trading Post, 186 W. Union St.
New Lebanon—Joseph H. Mittenight
New Rochelle—Gundelach's, Inc., 388 Main St.
New York—New Hippodrome Hdwe. 79 West 45th St.
Niagara Falls—Delta Tool Rental, 2901 Military Rd.
Nicholville—Bould's Farm Supply
Nineveh—Maurice M. Wightman Sales & Service
Route 1 (E. River Rd.)
North Boston—Klein Equipment Corp.
Odessa—Odessa Farm Equip. Inc., c/o S. Darling, Rt. 1
Ogdensburg—Fred Shurleff's Inc.
Washington & Catherine St.
Oneonta—West End Implt. Co., Country Club Rd.
Orchard Park—Site Cutters, Inc., 132 California Rd.
Oswego—Cloonan Small Engine Service,
Route 2, Hall Rd.
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Pavilion—P-D Service
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Penn Yan—Smith's Farm Store, Inc., 135 E. Elm St.
Pike—Mr. Leon Wilcox
Port Gibson—Port Gibson Equip. Co., P.O. Box 151
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1575 Patchogue Rd.
Port Leyden—Mellale Chain Saw Co.
Poughkeepsie—John G. Gauthier
Prawsville—Prattville G.L.F. Service
Redwood—William D. Boyer, P.O. Box 128
Riverhead—L. I. Prod. & Frl. Co. Inc., Pulaski St.
Rochester—John Feathers, 4135 W. Henrietta Rd.
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Sodus—DeLaser Bros.
Southampton, L. I.—Win A. Frankenbach Garden
Center, North Hwy., North Main St.
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Springville—Warner Lumber Mill, Route 1
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112 Montauk Hwy.

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Westport—Marshall P. Fish, P. O. Box 14
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74 Cranburne Lane

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Allenwood—Sizler's, Rte. 34, Spring Lake Circle
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Bayville—Dover Supply Co. Mill Creek Rd.,
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Cranford—Andy's Handy Service, 117 South Ave., West
Dover—Handymans Tool Shop, Centergrove Rd. &
Route 10
Eatontown—Grasslands, Inc.
Elizabeth—A-M Tool Rental, 69 Cherry St.
Englishtown—Joseph J. Szczepanik, Union Val. Rd.
Florence—Harkins Sls. & Ser., Rte. 130, Cedar Lane
Frehold—C. H. Roberson, Inc., 29 Court St.
Garfield—Ralph's Hwy. Ser., Rt. 46 & Blvd.
Gladstone—G. F. Hill & Co.
Hackensack—M. B. Bowers & Son, Inc.,
128 Willow Grove St.

Hanover—Do It Yourself, Inc. Route 10
Hazlet—Service Equipment Co. 3141 Route 35
Hewitt—Sportsman's Boats & Motors, West Shore Rd.
Kearny—Morris Hardware & Paint Supply Co., Inc.,
101 Midland Ave.
Lambertville—John Kurtz, Route 1
Ledgewood—New Jersey Lawn & Power Mowers
Equipment, Route 16
Livingston—Needham's Grinding Service
119 W. Mt. Pleasant St.
Madison—Trac & Lwmr. Sales & Ser., 331 Main St.
Maplewood—Gauthier Door Check, 2 Burnett Ave.
Maplewood—Fred Myers, Jr., Route 2—P.O. Box 504
Middletown—Monmouth Mower Shop, 656 Route 35
Monroeville—Albert Weber, Route 538
Swedesboro—Franklinville Rd.
New Egypt—J. R. Cairnes, Route 539
Northfield—Vic Collins, 2101 New Rd.
North Plainfield—United Rent-Alls, 714 Route 22
Oakland—Bergen Power Equipment, 583 Valley Rd.
Old Bridge—Old Bridge Tractor RFD—P.O. Box 328
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Pine Brook—Shulman Tractor Co., Route 46
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Riverdale—Wayside Garden Center, Route 23
Riverton—Riverton Farm & Garden Sup., Inc. Rt. 130
Short Hills—Millburn Grinding Shop, 658 Morris
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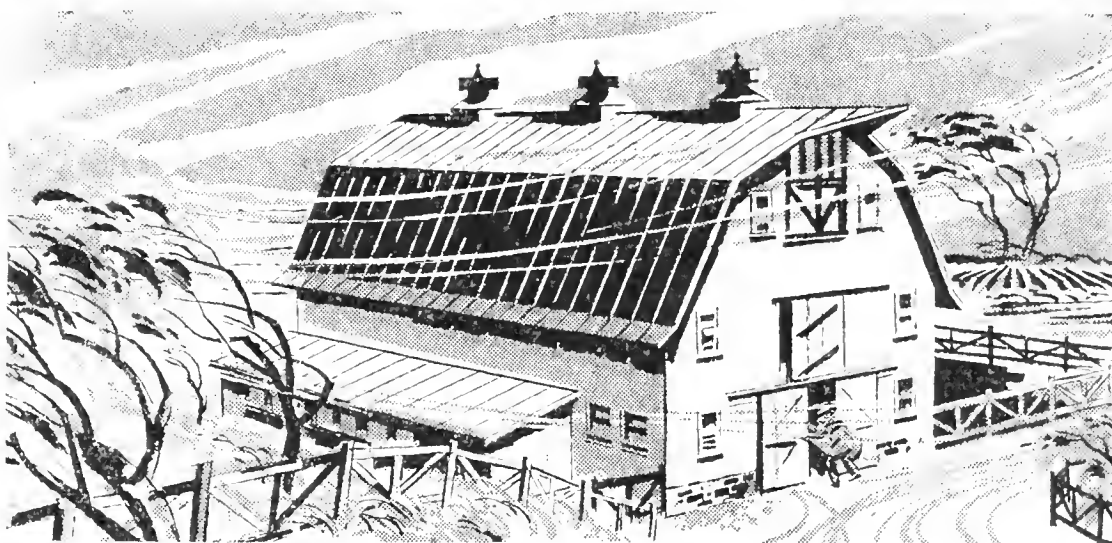


MEET

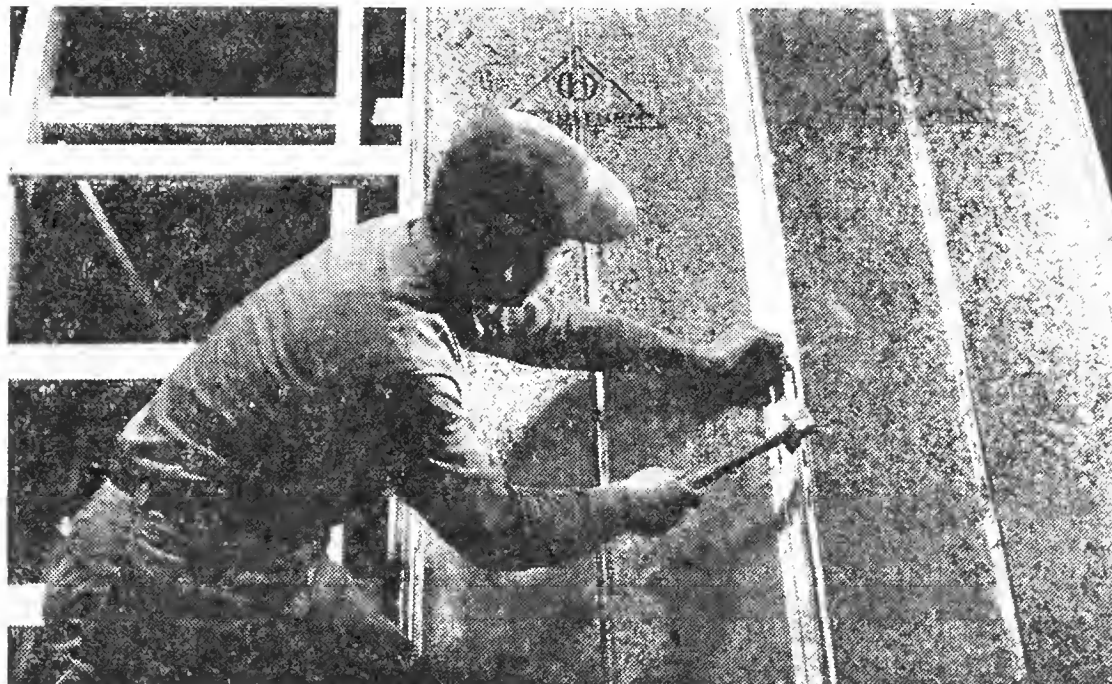
George Brandow, who explores some fables about agriculture on Page 32 of this issue, has a long and mighty impressive pedigree. Born on a dairy farm near Roxbury, in the Empire State's Delaware County, he earned a flock of scholarships to help along the way to a Ph.D. at Cornell University. He has served as a member of the Congressional Joint Economic Commission and as president of the American Farm Economic Association. His major responsibility as a professor at Penn State is in the field of agricultural prices and public policy in the Department of Agricultural Economics and Rural Sociology.



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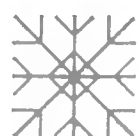
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Stop in soon to get more information about these two great winter companions from your GLF. Cooperative GLF Exchange, Inc., Ithaca, N. Y.

*Special sale prices on **Uni-Trac** from now 'til November 30:*

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EDITORIALS

BY GORDON CONKLIN



FORUM ISSUE

WELL, WE'RE taking our place in the batter's box and trying to go for extra bases on this question of agricultural public relations. Many comments have been made by farmers over the years that "somebody ought to do something" along this line.

Actually, there are many people throughout the nation doing a good job of creating better understanding between rural and urban people. For example, the National Farm-City Committee has for years been working along these lines. Out in Wisconsin, the Golden Guernsey Cooperative at Milwaukee publishes and distributes to its thousands of customers a 12-page booklet on the organization in particular, and dairying in general.

County agent Ira Blixt of Cortland, New York, is only one of many in his profession who devotes considerable time to the "PR" field. Administrators of colleges of agriculture across the land are aware of the importance of this task.

Service clubs like Rotary and Kiwanis are also doing constructive things in urban-rural understanding. Out in Indiana the State Farm Bureau puts out a monthly publication entitled "Public Relations For Agriculture," designed to assist in specific ways anyone interested in the subject. The National Grange has called for "a broad and accurate public understanding of the basic role of agriculture" in its summary of legislative policies and programs. Representatives of industries have done their part, too—folks like Francis A. Raymaley of American Cyanamid, and many others.

The people and organizations I have listed are only a few of those who deserve mention. Let's keep at it!

BUTTER PRICES

IT IS INTERESTING to note that the Canadian Agricultural Stabilization Board lowered the price of butter on May 1, 1962, by 12 cents per pound as a means of encouraging consumption. In response to this price decrease, total consumption rose 11 percent between 1961 and 1962. Most of this increase was due to expansion in household consumption, although use of butter as an intermediate product in the manufacture of other food products also increased. It is my conviction that the big reason why per capita butter consumption in the United States dropped from 17 pounds in 1940 to about 7 pounds in 1962 was price competition with oleomargarine, rather than all the warnings about cholesterol.

Market research studies show that per capita consumption of butter is highest among older persons and among households with a smaller number of persons than the average. This study indicates that the market for butter is likely to continue to become smaller as the relative number of such households decline, unless its price is brought nearer in line with that of competing products.

It is also interesting to note that, although milk production has risen pretty steadily of late, national population increases have been more rapid, and the total U. S. production

of milk per person declined in 1962 to 667 pounds—the lowest production per capita in more than 40 years. In the midst of all the talk about dairy surpluses, this fact often escapes notice.

This information was drawn from a booklet entitled "How Americans Use Their Dairy Foods," the 1963 edition of which is available for one dollar from the National Dairy Council, 111 North Canal Street, Chicago 6, Illinois.

MEET AL HOEFER, JR.

IT'S A PLEASURE to introduce you to the latest addition to the American Agriculturist team. He is Albert Hoefer, Jr., who joins us as Managing Editor—a job that includes the one hundred and one details of actually hammering the publication together each month. As time goes by, though, he is looking forward



AL HOEFER, JR.

to also having a chance to do more traveling and visiting with the people we serve.

Al was born in Troy, New York, the son of another Al Hoefer, who is well-known to many rural families as former New York State 4-H Club leader. After graduating from Ithaca High School in 1941, young Al served a hitch in the Air Force as a pilot. Next came more school at the University of the State of New York at Oswego, followed by three years of serving as industrial arts teacher at Arlington, Virginia. Al returned to Ithaca in 1953, and worked for Robert Eastman's Advertising Agency as general manager until joining American Agriculturist.

He is presently a Captain in the Air Force Reserve, and pilots a C-119 plane—the kind used for moving paratroopers. Community activities have included serving as deacon and trustee of his Presbyterian Church, as well as YMCA and Boy Scout work.

The Hoefers, who have two children, live at 113 Northview Road in Ithaca.

THE CASE AGAINST WORK

SAW RECENTLY where some folks living on welfare refused to work for the town highway department. The resulting legal hassle led to an appeal by the goldbrickers to higher courts on the basis of "constitutional guarantees against involuntary servitude."

How about a constitutional guarantee against involuntary support by taxpayers of people who won't work? Word is getting around in this rich country of ours that everyone deserves a good living merely because he happens to have been born. Nothing could be further from the truth; a person "deserves" according to the contribution he makes to the rest of society.

Did you know that many a prominent movie actor and actress collects unemployment insurance between movies? Any Hollywood toiler who is out of work can collect \$55 a week between pictures, even if he made a quarter of a million dollars on the last one and will start on another one next month.

Amidst this adult background of goofing

off, our labor laws just seem to naturally draw a tighter noose around the possibilities of younger people working. It's tougher all the time for persons under age 16 to be hired for doing any productive work, and there are many "hazardous machines" forbidden to be operated by those under 18. At the same time, of course, our legislators are besieged with proposals to create youth centers, a domestic Peace Corps, and other organizations where youth can find creative outlets for their energy! Our newspapers are full of reports of violence and crazy behavior by some teen agers, unable or unwilling to use their energy productively.

What is wrong with giving them a chance to **work** and contribute to society in the process? Is there something **wrong** with work?

THAT WHEAT VOTE

EVERYONE and his brother had an opinion about the consequences of that resounding "NO" vote at the time of the last referendum by wheat growers. Some said the Farm Bureau had cut its own throat by bucking the proposed regulations, and that the price of wheat would fall to a dollar a bushel if growers refused the plan.

There are some recent developments that cast some light on those predictions. Farm Bureau reports an increase in 1963 membership numbers over 1962 figures in the states of Kansas, Montana, North Dakota, and Colorado. As for the price of wheat, the futures quotation for September, 1964 wheat at Kansas City on October 8, 1963 stood at \$1.74. On the same day the cash price for wheat at Kansas City was \$2.14. That futures' price means that theoretically any wheat grower can sell for future delivery and be guaranteed at least that price for his wheat when delivered in September 1964.

It will be fascinating to see just what happens in 1964 to wheat legislation, the market price of that grain, and the fortunes of the politicians who thundered dire predictions in an attempt to sway referendum votes.

THEIR BLOOD WAS RED

MAN, THE EXPERTS say, can trace his origin to the "elemental ooze" that formed the ocean shores in the dim recesses of ages past. The mechanics of just how his Creator breathed life into lifeless mud is a debated issue, but all can agree that this is one of the most intriguing mysteries among those that lie beyond the frontiers of human understanding.

Every man, woman, and child who draws breath upon the earth could well ponder the phrases "dust to dust" and "ashes to ashes"—for each one can look backward down the eons of time to a common beginning in the primeval womb of Mother Earth. The original "stuff of life" shared by all mankind ranged in color from brown to black.

As the years since that beginning blended into centuries, and the centuries into ages, differences in color of skin became noticeable to the peoples of the earth. Man, limited as he is in the dimensions of his understanding, builds fences and walls along the natural cleavage planes of race.

But there is a color that is a common denominator of mankind, just as was the tint of the "elemental ooze" from which it sprang. It is a color as intimately a part of the human body as is the pigment of the skin. Four little girls in Sunday school at Birmingham, Alabama, have involuntarily left this stain forever upon the pages of history. Their blood, like every man's, was red.

ETB

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Now is the time to see your IH dealer for some sharp pencil dealing on that new IH equipment you've been wanting . . . and get a bundle of cash from your Early Trader's Bonus to boot. If you trade today, you'll get your bonus check immediately—and it can be a big one!

(Wives tell us this is an excellent way to get anything from a winter vacation to a new kitchen without upsetting the family budget.)

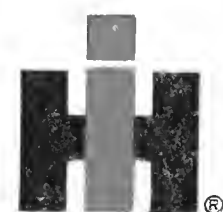
Here's the way the Early Trader's Bonus works. You and your IH dealer arrange the best deal possible for you on any new IH wheel farm tractor, baler, combine, or other major equipment which you purchase for farm use. He'll work out a trade on any used machines you have.

On the same basis, all IH implements are eligible for Early Trader's Bonus as long as the total purchase is at least \$1,000.00. Trade-ins and down payments on time purchases are eligible for bonuses, too.

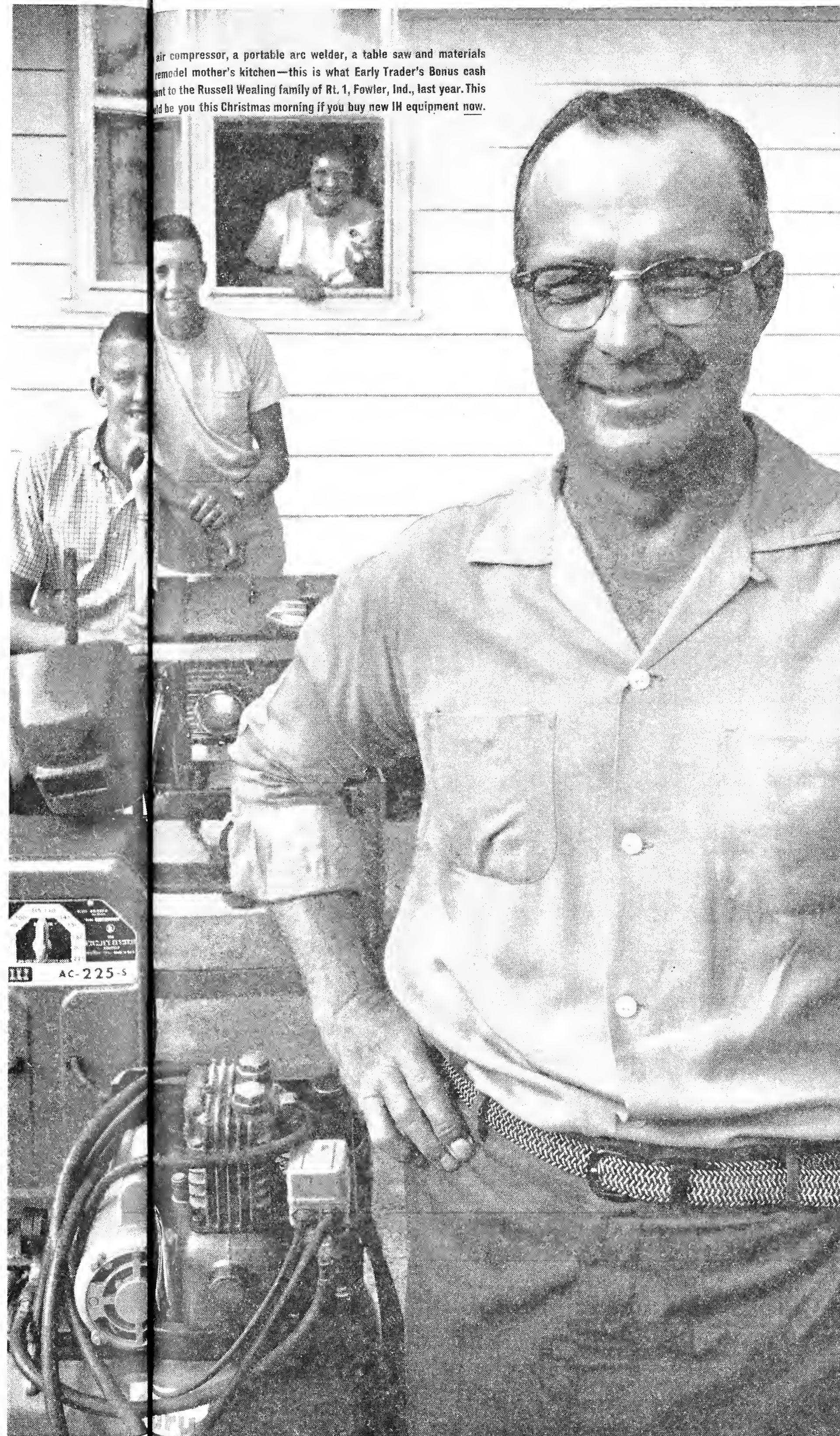
You start earning your bonus at the rate of 6% per annum from the date your trade-in or down payment is received. You'll collect this bonus from then until a specified date just ahead of the time you'd normally start using the equipment . . . this could be up to nine months.

Your IH dealer is in a real dealin' mood. He wants your trade-in now so he'll have plenty of time to recondition and sell it before next season.

So, the sooner you trade, the bigger your cash bonus will be. With prepaid bonus at the rate of 6% per annum, it really pays to see your IH dealer and be an Early Trader.



The people who bring you the machines that work



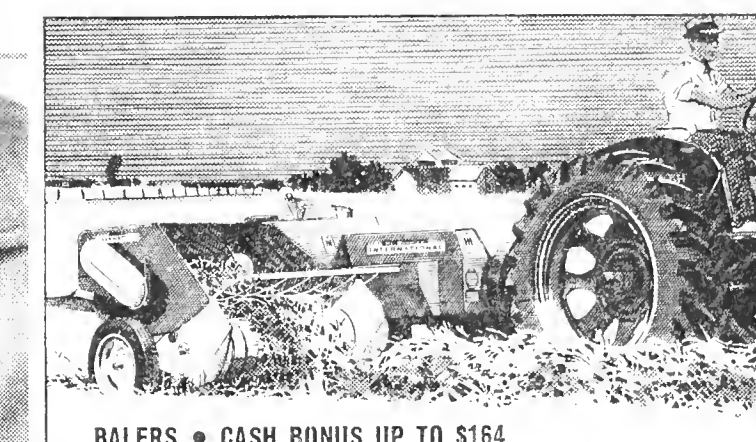
air compressor, a portable arc welder, a table saw and materials to remodel mother's kitchen—this is what Early Trader's Bonus cash got the Russell Wealing family of Rt. 1, Fowler, Ind., last year. This could be you this Christmas morning if you buy new IH equipment now.



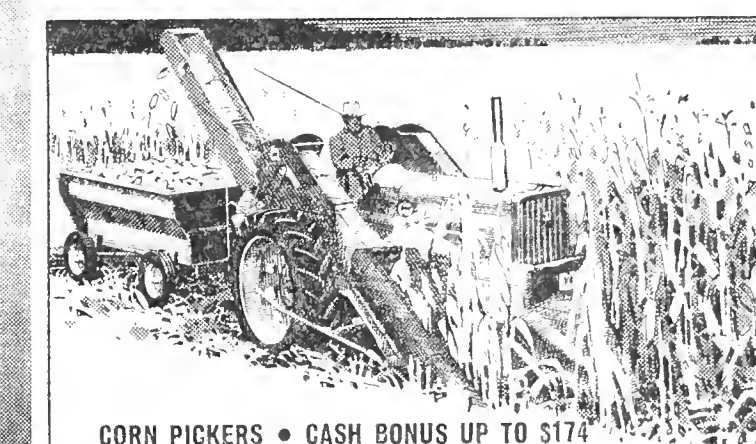
TRACTORS • CASH BONUS UP TO \$172



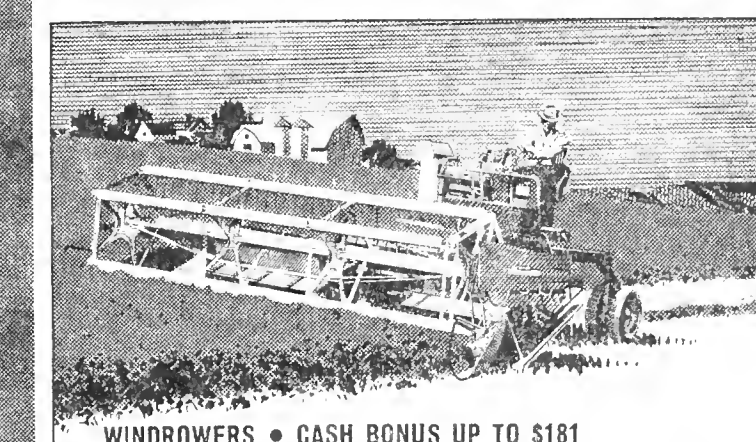
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BALERS • CASH BONUS UP TO \$164



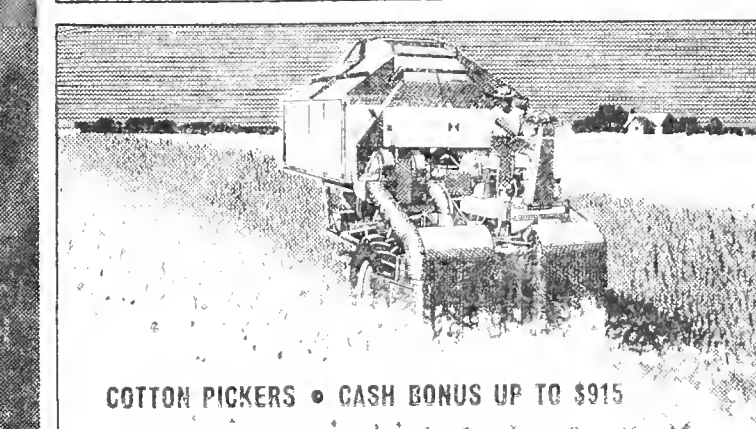
CORN PICKERS • CASH BONUS UP TO \$174



WINDROWERS • CASH BONUS UP TO \$181



FIELD HARVESTERS • CASH BONUS UP TO \$140



COTTON PICKERS • CASH BONUS UP TO \$915

BHL



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Misinformation Leads to Misunderstanding

Should agriculture be concerned with its "image"? Is it merely a pious hope that understanding between rural and city people can be improved? Here are some viewpoints on the subject from men who have worked at and thought deeply about agricultural public relations.

You'll find other articles in this issue that describe the dimensions of northeastern agriculture, dispel some of the more popular fallacies about farming in the region, and report on successful attempts to overcome urban-rural misunderstanding. For each of us,

pushing back the horizons of understanding is a life-long process, but a richly rewarding one. It's something that can be done only by constant attention, rather than sporadic campaigns. Let's build some bridges instead of erecting walls!



HOW TO LOSE FRIENDS AND ANTAGONIZE PEOPLE

By Ed Lipscomb*

Here are some things not to do in agricultural public relations.

THE normal reaction of any man or group when confronted with an ugly situation is to seek escape or to search for quick solutions. Either procedure is valid so long as the escape route is safe and open, or the solutions are sound.

Agriculture's present public relations situation offers exceptional temptations to take off down blind alleys or to try answers which are not answers at all. Comment on a few such temptations may be helpful.

Magic in Public Relations

There is no greater misconception of public relations than the idea that there is magic in it. It is probably less magical than modern farming, and involves at least a comparable amount of work—mental work, perhaps, but the kind of work Thomas A. Edison was describing when he displayed cards around his laboratory which said: "There is no expedient to which a man will not resort in order to avoid the real labor of thinking."

The "magic" mirage probably arises from the fact that public relations deals in abstractions. It plants ideas and information instead of seeds. It cultivates attitudes and opinions instead of young plants; and it hopes to harvest good will instead of food or fiber.

It may use the hand hoe of person-to-person persuasion, or it may be highly mechanized through scientific instruments of communication. However, it can no more plant its particular type of seed one afternoon and harvest a bumper crop the next morning than can the farmer.

If anything, its results are even slower. **An idea clothed in perfectly clear words may be flashed around the earth in the time it takes to blink an eye, but it may require months to penetrate a quarter inch of human skull.** One of the most successful operators in the field of product publicity maintains that 32 repetitions of an impression are necessary to assure recognition and remembrance. The man with the nation's best record in political public relations says, "We have to get a voter's attention at least seven times to make a sale."

The false idea of magic leads to the further and equally fallacious notion that public relations can be turned on and off as needed, like a water faucet. Not only is such an approach fruitless in gaining good will, but it invites the distrust accorded those who are heard from only when they are hurting. **Any public relations program started now, and discontinued when conditions improve, will lay the foundation for future ineffectiveness.**

Another false notion of the "magic" concept is that a few good solid news or feature

articles, or an energetic editorial or two that "gets them told," will create a pronounced change in the climate of public opinion.

It simply is not so. Today's public attitude toward agriculture has been at least a decade in developing. It is the cumulative result of uncounted pieces of criticism. If any single statement or effort on the part of any one man or group can change a few people's opinions only a little bit in a favorable direction, there is cause for confidence that success lies over the horizon. To expect more is to insure discouragement.

Public Relations Will Make People Love Me As I Am

This is entirely correct provided: (1) you live lovably; (2) you let people know about it.

One of the most erroneous ideas concerning public relations is that it is a broom with which to sweep sins under the rug, or some sort of painting procedure to make culprits look like cherubs. The fact is that good public relations is composed of two inseparable parts: (1) policies and conduct which, if known to the public and properly understood, will meet with its approval; (2) the necessary steps to make sure that the public knows and understands the policies and conduct.

Friends and acquaintances may not always

(Continued on Page 22)

*Director of Public Relations, National Cotton Council of America, author of "Public Relations or Peasantry," source of this material.

HOW to LIVE TOGETHER & LIKE IT

By Clifford Harrington



The author is Associate Director of Extension in New York State.

Here's a look at some specifics in the inter-relationships of rural and urban people in the Northeast.

OUR OWN Northeast, indeed, the whole United States, is a society in revolution. Not political revolution—politically, ours is probably the most stable nation in the world today—but technical, economic, social and cultural revolution. The national increase in population between 1950 and 1960 was three times that of any previous ten year period. Economic growth, great as it has been in the recent past, is barely keeping pace with this population growth.

Each year an average of one person in five moves to a new residence. Many of these moves shift the persons affected to a new region, to a new type of occupation, to a different way of life. In its overall effect, this restless activity has brought more and more people a material well-being and opportunities for cultural advance beyond the dreams of prior ages.

The possibilities for further revolution exist. Some scientist has said that of all the scientists who ever lived, 90 percent are still alive. What this can mean for new discoveries in

agriculture, human health, communication, and transportation is beyond comprehension.

Fewer Farmers

Down through the years, the movement toward a commercial agriculture with its greater efficiency has permitted the growth of this present pattern of our society. A nation that employs 90 to 95 percent of its work force in food and fiber production has fewer resources to produce the other goods and services people desire. It cannot afford the luxury of much research.

The population of the United States has grown from less than 4 million people in 1790 to 180 million in the 1960's. Associated with this growth has been a decided change in residence and occupation. In 1790, 95 percent of the people were rural and rural at that time meant farm, even though the farming was different from today's agriculture. Today, less than 10 percent of our Nation's people are on farms; in New York State, the percentage figure is less than three.

The entire Northeast has been in the forefront of the development of this new society. For example, while the United States reached a balance between rural and urban populations between 1910 and 1920, New York State achieved the same balance between 1860 and 1870.

Urban Growth

In addition to just the mere presence of more people, the principal characteristic of society in the Northeast is the growth of urban areas and a corresponding increase in their influence on people. The large metropolitan area that we know is a new development in the history of mankind. Yes, there were the city states of ancient Greece and the city of Rome did exist many years ago. But in terms of complexity and the effect of the metropolitan area upon the lives of all its citizens, these older cities could not compare with today's metropolis.

Fairly recent developments in communications and transportation have increased the urban influence on you and I, and all our neighbors. Newspapers, radio and television know few political and geographical boundaries in their services to the public. More rapid transportation brings the urban dweller to the country and the rural resident to the city. In fact, the line between city and rural is becoming less and less distinct. A major strength of this change is that **we are welded together as one people more than ever before.** But we need to better understand this modern society and how to deal with it.

Meaning of "Urban"

Dr. Helen G. Hurd, Associate Professor of Sociology at Rutgers University, comments on the urban society as follows:

(Continued on Page 10)

TELLING AGRICULTURE'S STORY

By FRANK R. NEU



The author is Director of Public Relations for the American Dairy Association.

Advice on what will constructively influence the relationships of people. Remember that communication is always a two-way street.

IN RECENT YEARS there has been a growing demand among farm groups that the "story of agriculture" be told to the public, with some hope that such action might reduce the unfavorable comments about agriculture in the daily press. This cry for more "public relations for agriculture" deserves some careful analysis.

A good starting point is to remind ourselves that the mass media do not reserve their "anti" editorials for agricultural programs and farmers. Not very many editorials are written to praise people or things—and it is probably a fact that editors have praised agricultural progress and the contribution of farmers to the national health and welfare as much as they have praised any other segment of our society. For example, June Dairy Month provides—for dairy farmers, at least—a flood of pleasant-reading editorials about the good work that they are doing.

No, editors do not reserve their venom for agriculture; they take out after almost every phase of government and business—and they most assuredly do call attention to the subsidies paid to other segments of the economy. The boondoggle over so-called "strategic materials" certainly caught attention for many

weeks when Congressional hearings were held on this subject. Legislators catch the lash of the editorial whip for passing out other than agricultural subsidies—and "big labor" and "big government" are constantly under fire.

Attitudes Change

Many attitudes have changed in this country over the past half-century, and some of them affect the public image of agriculture. Today a good many people stiffen with resentment when agricultural leaders or politicians suggest that the only place where a truly "good" person can originate is on the farm. With an increasingly smaller percentage of the nation's population coming from rural areas, it certainly doesn't help to build good relations between farmers and city dwellers when speakers suggest that Americans are less virtuous because there are fewer people among us with farm backgrounds. City and suburban dwellers have the very understandable notion that **their** children will do as well as any from a rural background!

But the main steam behind the demand for better public relations for agriculture seems to be in the thought that consumers will not gripe about food costs — or about the tax

costs of agricultural programs—if they are told often enough about the tremendous gains in agricultural efficiency, and of agriculture's contribution to the nation's health and welfare.

This approach overlooks some basic facts about American life. Being as unemotional as we can about it, we should ask ourselves why any homemaker concerned about stretching the family food budget should get excited about the fact that in Russia people spend more than half their incomes for food as compared to the less than 20 percent of our incomes that we spend for food in the U. S. Why should it be important to the homemaker to know that it takes fewer minutes of labor today than it took ten years ago to buy a steak or a bottle of milk? Surely we know what these accomplishments mean to her welfare—and to her budget—but are we reasonable in expecting her to absorb and store away this kind of information?

There are audiences to whom information about agricultural efficiency is very important. Like all other groups in our economy, farmers have need of friends; agriculture requires large amounts of capital—which must be borrowed. Legislation will probably always be important to agriculture, as it is to other industries, and it is fairly reasonable to assume that legislators who understand the way agriculture functions will pass more intelligent legislation. Therefore, agricultural groups have a responsibility to themselves to keep these other segments of the business and governmental worlds informed on their progress and their problems.

Changed Emphasis

When we turn our attention to people as consumers of agricultural products, the em-

(Continued on Page 30)

How to Live Together And Like It

(Continued from Page 9)

"The urban society is a highly interdependent society, and many organizations have to change structurally to meet the needs of interdependents as opposed to independents. When a man lived on his own land, grew his own food, brought up his children as he saw fit, the theory of that which governs least governs best was feasible, with each family, community or state coping with its own problems as they came up.

"But the development of social security, unemployment insurance, the increasing number of regional authorities to deal with interstate problems such as water supply and transportation, and the increase in and changing use of tax monies, the public service orientation of many of our large corporations—all are clues to this change in social structure, derived from a basic interdependence. The community now performs many of the basic functions

once performed by the family or kin, whether the community is the township or the federal government."

The Meaning

What is the meaning—the consequence of this dynamic, changing, urban culture? Our immediate answer could be that it has provided a more even distribution of those goods and services associated with a material standard of living. It has not brought equal opportunities to purchase them, but in contrast with some other cultures, the people of the Northeast enjoy a uniform high level of living.

But other meanings in the form of problems exist; let's explore briefly the consequences to individuals, to families, to farm businesses,

to the community and to the society generally.

A major threat to many individuals today is that their methods of earning a living may soon be out of date. This is true in agriculture as well as in other businesses and industries. One hundred years ago, a man or woman could expect to learn by age 21 most of what was needed for a successful life.

This is no longer possible for many; the world is changing too rapidly. To be happy and successful today—perhaps even to exist—requires continuing learning. The educational system of American society is challenged to help the individual in his adjustment to new situations. An opportunity is presented to encourage individuals to take part in education throughout their adult lives.

The other side of the picture reveals that many people have found advantages in today's situation. Farming, measured by total output, is more important in the Northeast than ever before, but fewer people are required to operate the farms. A large number of people have moved out of farming in the region during the past seventy-five years. Without a dynamic, growing economy, they would have had difficulty in obtaining other employment. Today's economy presents a new challenge to some farm people—to become qualified to enter a new labor market.

Family Changes

The family, too, has felt the impact of changing times. In contrast to some time in the past, the American family unit is smaller, more mobile and no longer an independent producing and consuming body. Now one or more members of even a farm family may be employed in non-farm occupations.

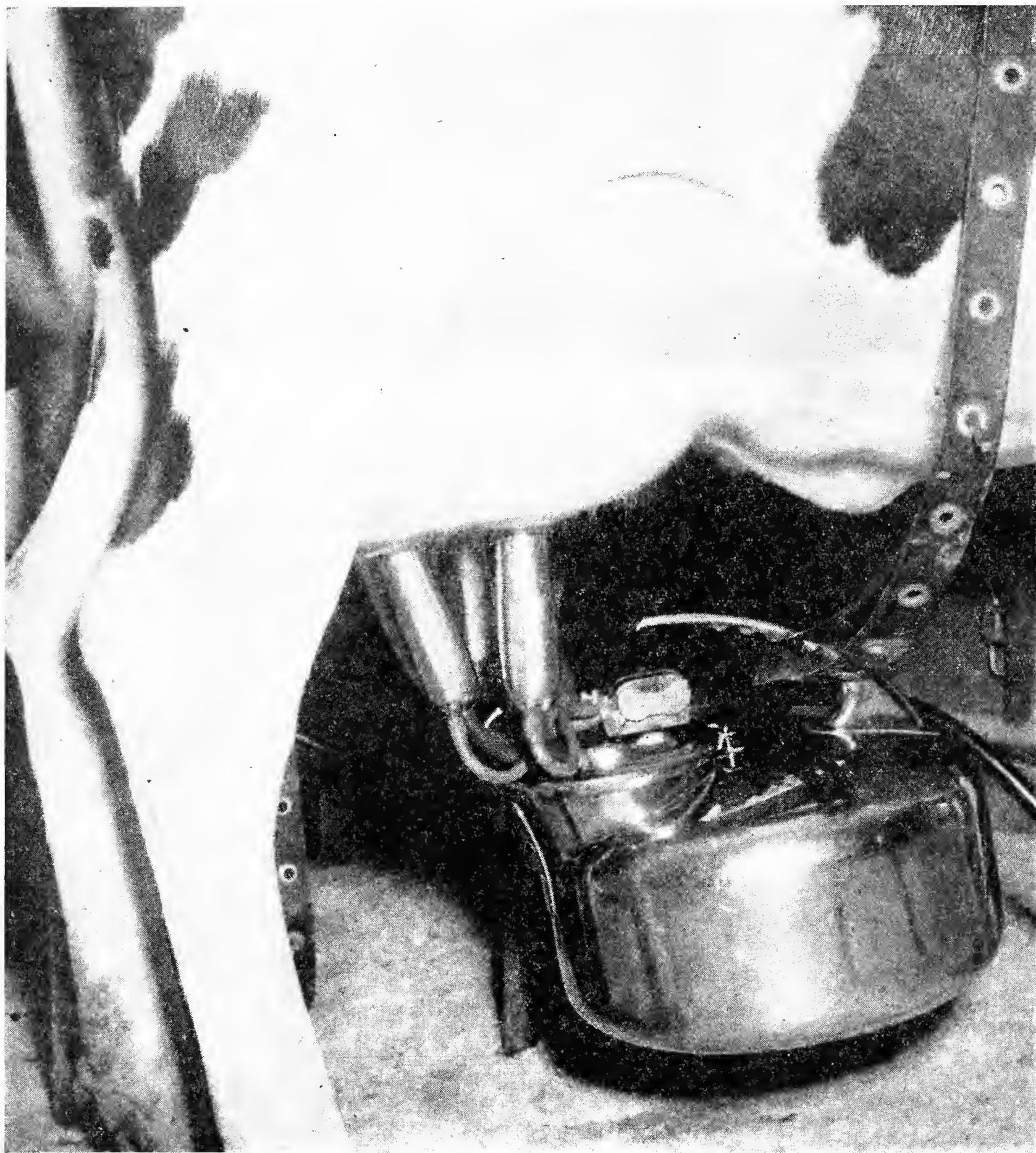
Even though the family is a basic social unit, many of the traditional functions of a family are being delegated to institutions, experts and professionals outside the family. Still retained are the responsibilities for food, housing, clothing—basic support. Perhaps the most important function of today's family unit is to provide a "safe" environment for individuals who are battered in the competitive and ever-changing world.

The nature and character of open spaces and small towns have been changing. The reduction in numbers of farms and the shifting population patterns have affected schools, roads, churches, local government and other parts of the local community. Society has become more complex because of differing vocations, differing interest, differing backgrounds of the individuals involved. **The open countryside is no longer a community of farm families.**

The movement of village and city people into the country has been possible largely because of the "two-car affluence" to which we have become accustomed. Professor Howard Conklin of the New York State College of Agriculture at Cornell University estimates that at least 60 percent of the land released from agriculture in New York State will be used for private personal recreation—seasonal or year-round living in the country.

As city and village people move into the country, they bring with them expectations and experiences, both as to the level of services and the amount of tax money they are

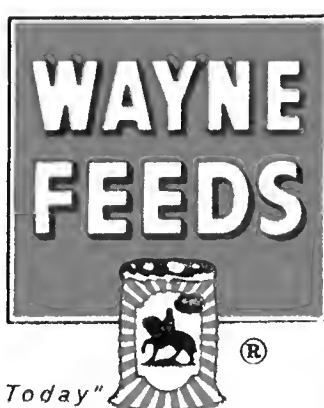
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how much more milk?

Do you know how much milk your cows can give profitably? The Wayne concept of Dairy Feeding helps you find out. Dairy science proves that most cows aren't fed to produce up to their bred-in capacity. Now Wayne shows how to gain this extra margin of production with the Wayne concept of "lead feeding." That is, you feed high level grain mixtures to lead the cow into her maximum production. And it works! D.H.I.A. records on 30,000 cows fed high level grain mixtures show a return of four dollars for every dollar invested in additional feed. See your Wayne dealer. Let him help you find out how much more milk your cows can give profitably.

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willing to pay to provide these services. No longer is the rural community a group of very similar people having the same type of work and patterns of living. Now next door neighbors have differing interests even in the weather.

Different Interests

One neighbor schedules his life and manages his own enterprise according to the biological requirements of a farm business. Right next door, the other may be employed on the night shift in a factory several miles away. This lack of homogeneity in today's community has its effects upon the traditional rural organizations. The typical farm organization may have developed a pattern of suppers or meetings beginning at 8:00 or 8:30

p.m. Non-farm people are interested in an earlier hour of meeting. If the non-farm people begin to outnumber the farm people, then the pattern may be such that farm families cannot participate.

The need for communication that will result in understanding between different interests is evident. Compromises may be necessary, but the development of a kind of community-mindedness with full appreciation of different interests may well be essential to the continuation of our method of governing ourselves. Since its very livelihood may be at stake, perhaps the farm family should assume all possible leadership in obtaining the required communication.

It is becoming increasingly clear that farming is not always compatible with the interests and needs

of other rural community residents. One individual has stated the issue very clearly, "Dairy farmers can no longer sell off the road frontage for homes and expect to spread manure directly behind those houses." Other types of agriculture have other kinds of incompatibility.

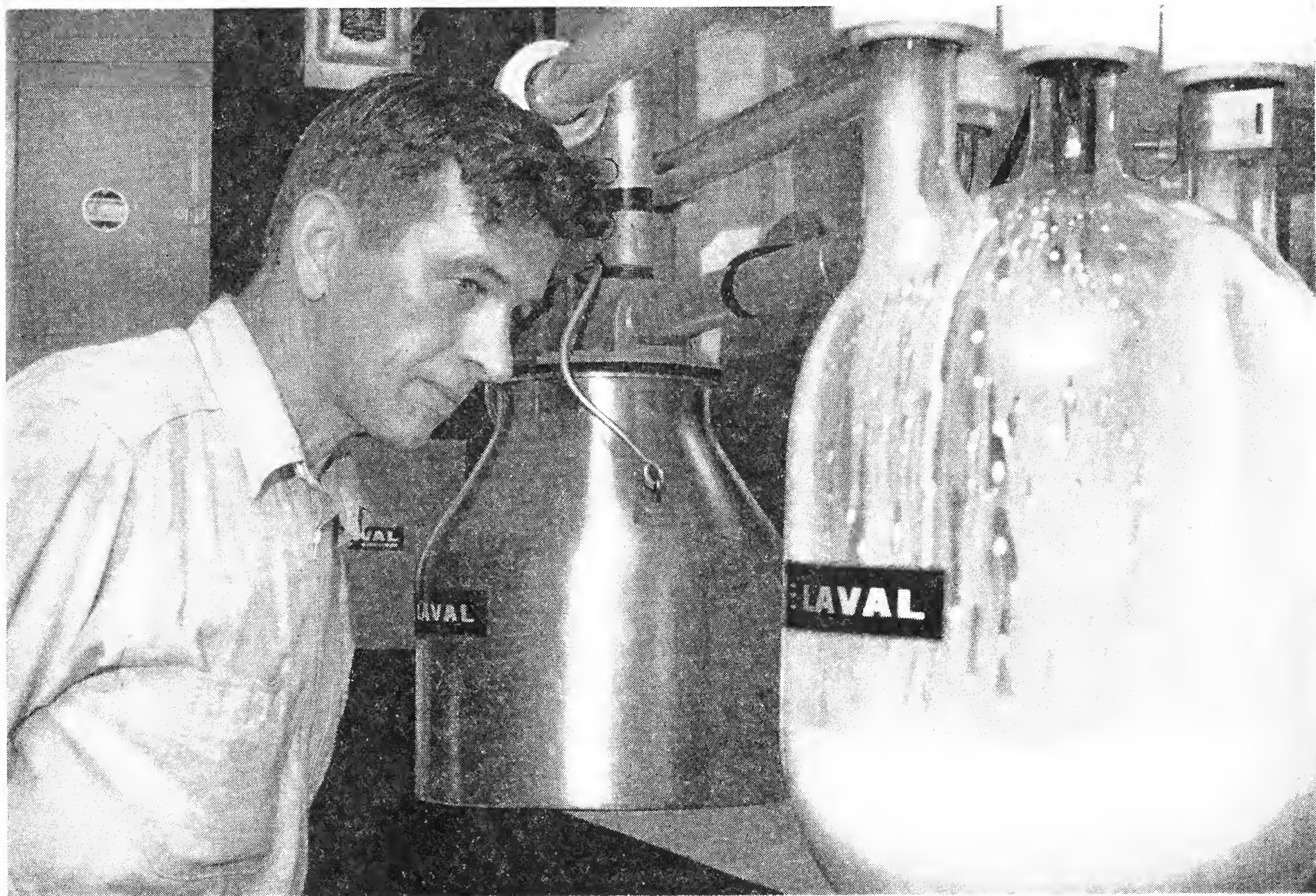
Some may argue that agriculture was here first and that food is necessary for life itself. However, as farm families continue to be outnumbered, changes in some of the traditional patterns of farm operation may be forced upon agriculture. Adjustment to a forced change often is more expensive—and painful—than a voluntary adjustment.

Problems and Virtues

You may conclude that there are more problems than virtues to a changing, dynamic society. Yet, we

can probably agree that without the development of a commercial agriculture, requiring fewer people to produce the food and fiber needs and therefore releasing resources for the production of other goods and services, our entire population would have a lower standard of living. Farm people, especially, might be only peasants.

Every culture has its virtues and its problems. We exist in a culture that provides opportunities to struggle with its problems at the same time it permits individuals to develop their abilities to the utmost. The world is indeed complex; the local community is progressing through adjustments. Still, the strength of individuals working together can be "wonderful to behold."



Vincent Weidman, Oxford, New York

We get 4 pounds more milk per cow daily (and the new fast-milking De Laval is gentle)

Read how Vincent Weidman of Oxford, New York, gets four pounds more milk per cow daily with the new *fast-milking* De Laval.

"We've seen some increase in production, about four pounds per cow per day, since we changed to the new De Laval units.

"We're also milking faster. In fact, we're milking 47 cows *one hour faster* with the new De Laval Combine.* This figures out to a savings of about two hours a day.

"Certainly, a good part of this saving is due to the pipeline system itself. However, I've no-

ticed that we can milk each cow a lot faster with the new De Laval units. About 30% faster.

"Udder health is a lot better, too."

Since he changed to the new De Laval bucket units from a different make of hanging milker, Ferris H. Todd of Bovina Center also has noticed an improvement in teat and udder health. He says cows stand better for the new

De Laval. No redness of teats or irritation.

Mr. Todd now ships 400 pounds more milk a day from his 60 cows.

We could go on and on, citing more examples of New York dairymen who milk faster, get better teat and udder health and more milk with the new *fast-milking* De Laval. Some right in your own county.

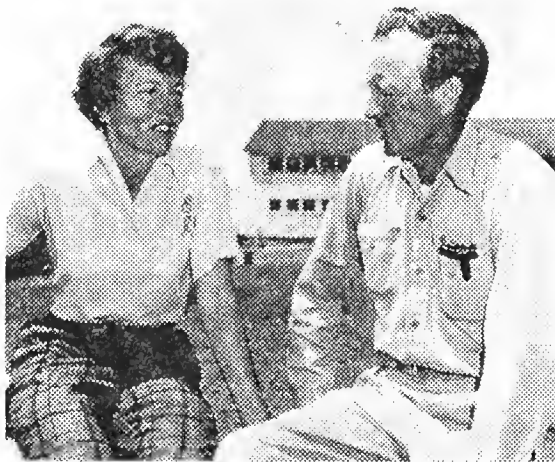
Find out more about it by asking your De Laval dealer for a free trial. Only 10% down, up to 4 years to pay. Or write us: The De Laval Separator Co., Poughkeepsie, N. Y.



*Reg. trademark of The De Laval Separator Co.

In winter the pond becomes a skating rink. Tots to grownups enjoy this graceful sport.

Mr. and Mrs. Calvin Johnson, who are sharing their own love of the outdoors with many others.



He's Still Farming By LESTER FOX

CALVIN B. JOHNSON is an ex-U. S. cavalryman who still likes horses. He liked dairy farming, too, but decided against making the investment necessary to meet the requirements of a new State law concerning milking equipment. These two things together produced what is believed to be a unique non-profit farm recreation setup for families of Bangor, Maine, and surrounding communities.

For a modest membership fee, and without going far afield, families of the Bangor area can enjoy skiing, skating, tobogganing, snowshoeing, sleigh riding, horseback riding, fishing, swimming, hiking, camping, picnicking, hunting, exploring, bird watching and nature study, all in a beautiful 400 acre woodland.

And the best part, from Calvin Johnson's point of view, is that he's still farming—only now he makes his living from boarding horses. Here's how this unusual enterprise got started.

When Calvin Johnson came back to Maine from World War II (with a bride he had met in Laredo, Texas) he bought a 90 acre farm at Hampden, three miles south of Bangor. He stocked it with Holsteins and Guernseys, and leased 25 nearby acres to grow additional feed for his 35 milkers. He also kept three or four saddle horses for his own use.

New State Law

The Johnsons rocked along happily with their dairy farm until 1955. Then came the new State law that would require them to invest many thousands of dollars in remodeling their milking parlor and installing new equipment. Johnson realized that the new law was a good thing—but he figured his dairy income wouldn't justify the additional capital investment. So he sold his cows and went into the business of boarding horses. Then he bought 400 acres of woods near Newburg, 12 miles west of Hampden with two ideas in mind—recreation, and income from the sale of wood products.

Johnson had noted a zooming public interest in outdoor recreation, and the resulting pressure being put on existing facilities. For example, Bangor people had a three hour car trip to the nearest ski lift; once there they often had to wait in line an hour to get on the lift. The nearest campsite, already crowded, was 20 miles away.

Johnson and seven local business and professional men formed the

Ski Horse Mountain Pond, surrounded by beauty at all seasons of the year.

Ski Horse Mountain Associates, Inc. Then they and other local people organized the Ski Horse Mountain Association. The main responsibility of the Associates is to take care of all financing; the Association plans all recreational activities and operates on a \$10,000 annual budget.

Membership in the Association was opened to families in and around Bangor, with 100 families set as the limit. Membership for families who want to use all the recreational facilities costs \$105 per year per family; for families who don't wish to use the ski lift it's \$30, U. S. tax included in each case. Most families take the full treatment.

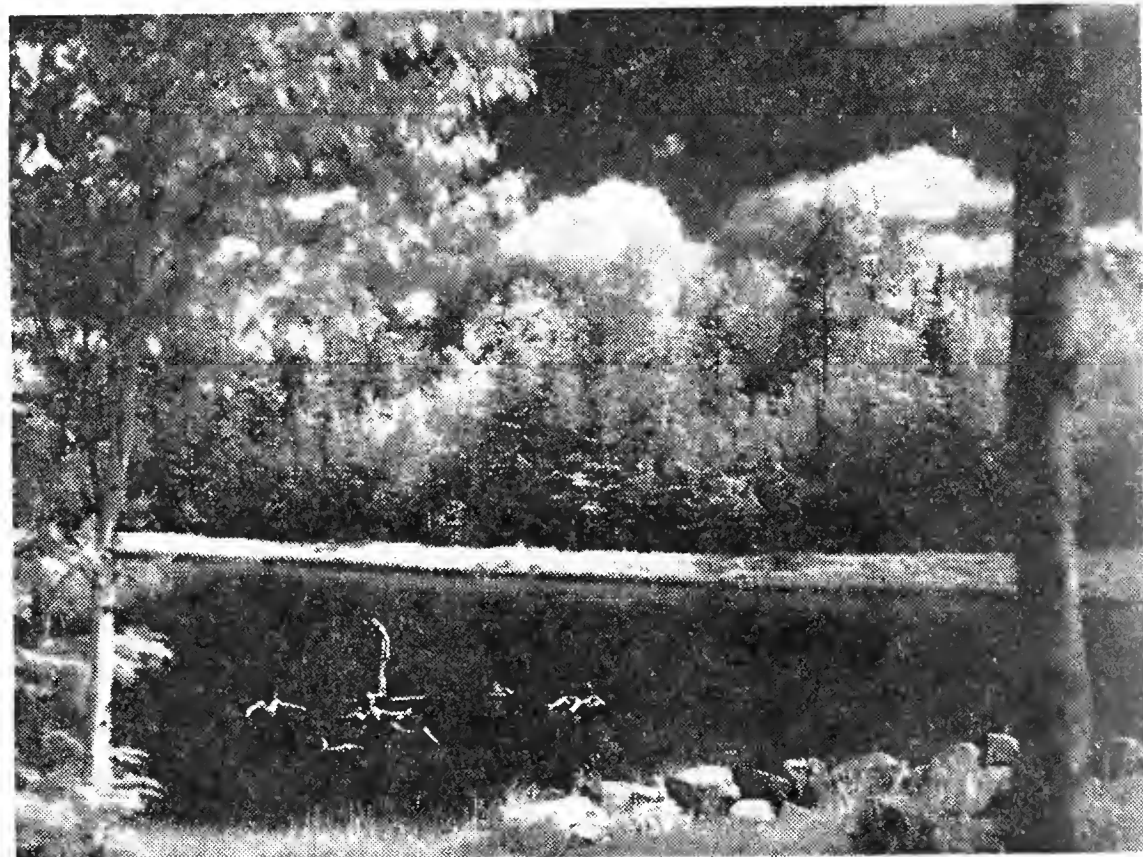
To get the recreation enterprise going, the Associates obtained \$30,000 on a 20 year loan, \$7,000 on a demand note, and other sums for short periods, from the Eastern Trust and Banking Company of Bangor. Johnson then sold 15 acres of his woodland to the Associates for \$300 for building sites, and donated the use of the rest of the woodland cost-free.

With the preliminaries out of the way, the Associates turned the woodland into a year-round recreational paradise. A local contractor did the basic job for \$8,000, cleared trees to make ski slopes and toboggan chutes, and built a three-quarter-acre farm-type pond for skating, fishing and swimming.

Trails and bridle paths were fashioned in curving patterns through the woody setting. Trout streams that criss-cross the woodland were spruced up to beckon the angler who likes to fish in quiet contemplative surroundings. Trails were marked to keep cross-country skiers and snowshoers on course. A jumping course, paddock, and shed big enough to hold 28 horses were built to accommodate riders; storage space for supplies and equipment was included.

Lodge Built

The Associates bought a pre-fabricated building from a Bangor firm, remodeled and enlarged it, and put it up next to the pond as a lodge. Measuring 24 by 96 feet, it is complete with a dining room big enough to seat 100, king-size fireplace, locker rooms, lavatories, shower room, a kitchen that any cook would love, electric service, telephone and heating plant.



Picnic tables and grills were spaced in the open area around the pond; camping sites approved by the Maine Forest Service were scattered around the woodland; water holes were developed in the woods with both campers and riders in mind. Last and most costly installation was the T-bar ski lift. The \$15,000 machine can lift 800 skiers an hour up the main 1200-foot slope.

Remodeling the woodland for recreation was no small job. Besides the other work, the Associates had to apply conservation measures to control erosion, protect the improvements, and maintain the beauty of the setting. With Soil Conservation Service help, Johnson had previously planned and applied to his Hampden farm a complete program that stopped erosion, built up soil fertility, and increased crop yields. And he got the same kind of technical help with his 400 acre woodland.

Johnson operates the woodland as an income-producing tree farm, and at his Hampden place boards about 30 horses owned by members of the Ski Horse Mountain Association. His standard rate is \$33 a month; some pay more, some less. "That's better than small scale dairy farming, and a lot less work and worry," he comments. He doesn't take care of the horses, only boards them; the 60 to 70 children who ride the animals take care of their mounts.

The cropland on the 90 acre farm is now all in hay. Johnson produces 120 tons a year on 60 acres, and buys 25 to 30 tons locally to fill out the horses' needs. Help in running

the farm comes from his wife Sandra, and their children, Jenifer, 15, a talented horsewoman in her own right; Peter, 17; and Mark, 12. They all like the outdoors.

Stimulated the Economy

The whole recreational enterprise has stimulated the Bangor economy. Most of the supplies and equipment used at the recreational center come from local stores; members generally buy their sport togs and gear locally; a Newburg farm wife has the dining room concession at the lodge, and when she needs extra help for banquets she hires neighbors; two local men have full-time jobs at the recreation center during the winter.

"There's no supervised recreational activities," Johnson said. "The idea is to enjoy the out-of-doors. The children are allowed full rein, and it's refreshing to see how well they accept responsibility. We are doing something that's quite wonderful for the children, and they're having a good time in healthful surroundings and activities."

The grownups, too, are having such a good time that they are planning more picnic areas, another and larger pond, and continued stream channel improvement to make fishing better. More accommodations for horses and additional outdoor grills are also in the plans.

Having the best time of all, probably, is Calvin Johnson. In bringing wholesome outdoor recreation to parents and children of the Bangor area, he finds great satisfaction.

GLF
REPORT
TO DAIRY
PATRONS



Challenge Feeding... how it helped build a 5000 lb. herd average increase for George and G. P. Schwager



Challenge Feeding... how it increases the profit making ability of seven out of ten cows



"We challenged them to peak high... Now we know our profit makers"

Three years ago, G.P. Schwager and his son George, of McDonough, N.Y., did not know which of their cows were the potential profit makers. They knew which cows were producing higher than others. But they didn't know how much potential these cows really had. Equally important, they didn't know how many of their low producers could get up into the high profit bracket.

Now they know the profit making potential of every cow in the herd. It happened this way.

In the fall of 1960 the Schwagers enrolled their herd in the GLF Profit Feeding Plan. A year later the herd average had climbed 2100 lbs. of milk. Then Dave Sprague, GLF Dairy Representative, asked the Schwagers if they would be willing to help the GLF

Research Department test a new feeding method, called Challenge Feeding.

The Schwagers picked out five freshening cows and put them on Challenge Feeding (feeding to appetite, all they would eat) during the first four weeks of lactation. Then they dropped the grain down gradually to the standard rates, determined by the GLF Dairy Calculator, and continued on through the lactation at that level.

"One of the cows, Debby, peaked at eighty pounds of milk a day," George says, "which meant that she gave us about 3000 pounds more than she had given the year before. Three of the others peaked between 65 and 70 pounds a day... gave us 8500 pounds of milk more than the previous lactations. The fifth cow did not show a real gain."

The Schwager's entire 33 cow herd has been Challenge fed ever since. Their herd average has gone up 5000 lbs. per cow in just three short years.

The difference in the way the herd is handled now, says G. P. Schwager, "is that we know which cows can produce the amount of milk we want, and which cows cannot. We cull the ones which can't. We know that every cow in our herd is a profit maker."

Three years of GLF research has shown that seven out of every ten modern dairy cows will respond profitably to Challenge Feeding... giving up to 6000 lbs. more milk a year.

There have been over 700 cows in these tests. Last year the average gain in milk of the cows tested was 3,750 lbs.

GLF Challenge Feeding Results-1962*

Milk Production	Percent of total cows on test	
Gain per Cow	10%	20%
Over 6000 lbs. milk		
5000-6000 lbs. milk		
4000-5000 lbs. milk		
3000-4000 lbs. milk		
2000-3000 lbs. milk		
1000-2000 lbs. milk		
500-1000 lbs. milk		
No response		

*GLF Research Dept. test on challenge feeding, 1962

The money making potential of Challenge Feeding will vary on different dairy farms. The price of milk, the cost of concentrates and formula feeds, the quality of the cows, forage cost and quality—all will affect the amount of added profit to be gained from Challenging your cows. But the gain is there. All you have to do is try it.

Find out this fall how much money this new feeding method can make for you. Enroll in the Profit Feeding Plan today, by contacting your GLF Dairy Representative.

Cooperative GLF Exchange Inc., Ithaca, N.Y.



DAIRY FEEDS & SERVICES

SOME ANSWERS TO THE IRON

By Jim Hall

Publisher, American Agriculturist

JUST ONE long series of contradictions.

That is about the only way I can sum up what I saw and was told during my recent eleven days behind the Iron Curtain.

There were 43 of us on the People-to-People trip, all but two from New York State, and all either farmers or in farm-related business. We soon found that we'd get about as many different answers to a question as people we asked—perhaps because everyone wanted to be helpful but didn't know the real answers. For this reason, in my report to you I can vouch only for what I saw.

We were all determined to enter the mysterious Soviet Union with open minds and blank notebooks, but it didn't take long to realize we all retained some preconceived ideas that were far from factual. What we saw, and the answers we received, helped to clear up some of the puzzling and contradictory things we had read and heard about what's behind the Curtain.

First, citizens of the U.S.S.R. are not unhappy, dissatisfied people. They are so much better off than they were under the old Czarist regime, or even since 15 or 20 years ago, that most of those we saw are completely sold on their communist system.

And why wouldn't they be? Millions of them lost homes during the war and existed in hovels we wouldn't put animals in. Many of these millions are now housed in six-to-nine-story newly-built State-owned apartment houses that must seem luxurious to them by comparison. Others, still living in rather mean, crowded shacks, can see scores of new apartments going up, and are confident their turn will come to move in. We were told that in Moscow alone, with its seven million people, apartments were being completed for 350 families a day. They pay from \$5 to \$10 a month for one- to three-bedroom apartments — each, we were told, having its own bathroom and kitchen.

To our eyes, the apartments being built of prefabricated concrete slabs appeared to be falling apart even before completion, and there seemed no pride in workmanship. Their drive is to get people housed, therefore little time and money are spent on finishing touches like paint or landscaping. However, even in our hotel — an impressive 26-story 1,400-bed structure built only seven years ago—poor, hasty workmanship made it seem on the inside to be at least 50 years old. It was clean and the service was good, but bathroom tiles were loose, plaster had obviously been patched in many places, many plumbing fixtures wouldn't shut off, and oak parquet floors had never been sanded.

We knew the State owned all property, but it was still a shock to realize that no one, even if he had the money, would be allowed to build a private home in Moscow. It was a shock, too, to learn that a man living outside Moscow could not move into the city or take a job there unless the Party leaders decided he had

needed skills. They would then assign him living quarters and a job.

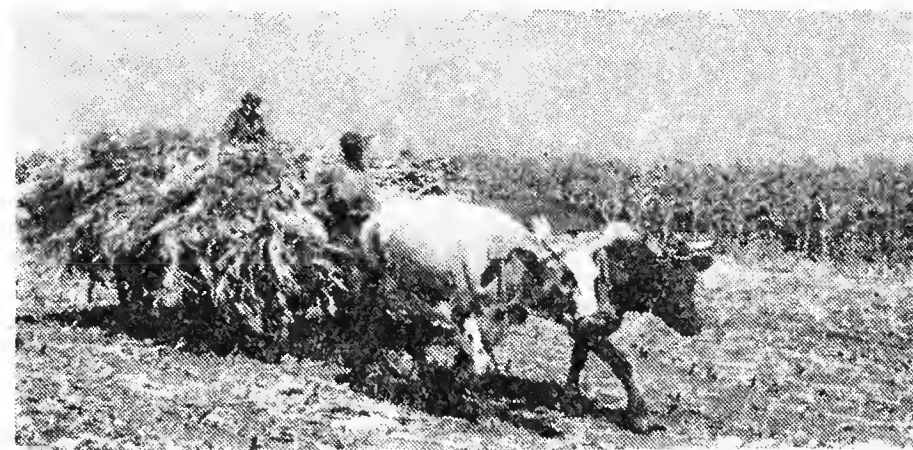
Why else are they pleased to have the State own and run just about everything?

Well, for people who have always had so little, it must seem good that everyone able to work is employed and gets regular pay from the State. It must seem good that whatever the illness or accident, all medical, surgical and hospital expenses are paid. We were told that there would be no bill even for one of us if we needed medical attention.

Transportation Cheap

Transportation is dirt cheap. City bus fare is 2 cents and everyone pays on the honor system, helping himself from a roll of tickets. The Moscow subway system is "as advertised." It's at least 200 feet underground, with rows of high-speed escalators whisking huge crowds up and down. The air is fresh. The first station we saw was so elaborate and so clean we thought it a showplace for tourists, so we got off and on trains at three more stations, all on the original 5 cents fare. Each was as efficient, ornate and clean as the first. The low-cost State-owned transportation even extends to plane fares in the U.S.S.R. Round trip jet fare to a city 800 miles away was less than \$25.

Their claim of full employment is no doubt true, but much we saw indicated it was "make work" to keep everyone busy. Some women worked all day sweeping the streets with brooms made of twigs broken from trees and tied together. But at 1:00 a.m. we saw big sprinkler trucks flushing the same streets and scrubbing them with their revolving brushes. We saw power lawn mowers only at the Exposition grounds. At the big Moscow airport women were cutting the grass by breaking it off with their fingers—they didn't even have a sickle. The grass probably was for their goats or cows.



We were impressed by the fine public transportation at low cost, but were soon aware of the necessity. We saw many trucks and buses, quite a few State-owned taxis, and a few official and tourists' cars — but no cars owned by private citizens. I took a picture of the parking lot in front of our hotel. In it were six buses, one truck, three taxis. That was all. Yet there were 1,400 guests in the hotel! A map of Moscow showed only nine filling stations in the city which sold gas for cash. We assumed there were others to serve State-owned vehicles.

The people we talked with were proud that under their system they

had jobs, low rents, cheap transportation, free medical care, a State pension on retirement, and paid only one or two taxes: a 6 percent income tax withheld from their State pay checks, plus an 8 percent "no child" tax if they were childless by age 23, or had less than two children by age 30. For each child in excess of two, the parents receive a regular monthly check.

The Party leaders have announced that there will be no taxes whatsoever, and that no citizen will be paying for rent or utilities by 1975. "All costs," we were told, "will be paid from the profits on the high production of our State-owned industries."

When we learned that salaries ranged from about \$65 a month for the lowly jobs to around \$160 for doctors and some engineers, I asked how anyone could hope to accumulate something to leave his children or even to protect his family with insurance. To our hosts, this ranked as a silly question. State nursery schools take care of the little tots. The State plans free education for a compulsory 11 years, and then pays \$29 to \$100 a month to those who qualify to attend the University for five years. Then it provides jobs, housing and all the other care—so what is there to leave children other than the State?

As a conservative private enterpriser, I saw lots of holes in such a system, but I could see, too, why persons born and raised under the system—and exposed to no other—could believe it Utopian. They have never had the freedoms provided in our Constitution and probably wouldn't understand why we want to go to all the "trouble" of choosing where we want to live and work, or of spending our earnings to build our own homes and churches and future security.

To our American eyes, the contradictions kept popping up: In face of the "no child" tax and the guaranteed State security, why are there as

many abortions (legal) as births? If profits from high production would give everyone free rent and no taxes, who was going to buy all the production? They couldn't buy it themselves and live on the profits any better than a cow could live and produce on its own milk. Could they export enough to provide a tax-free economy for 220 million people?

Food

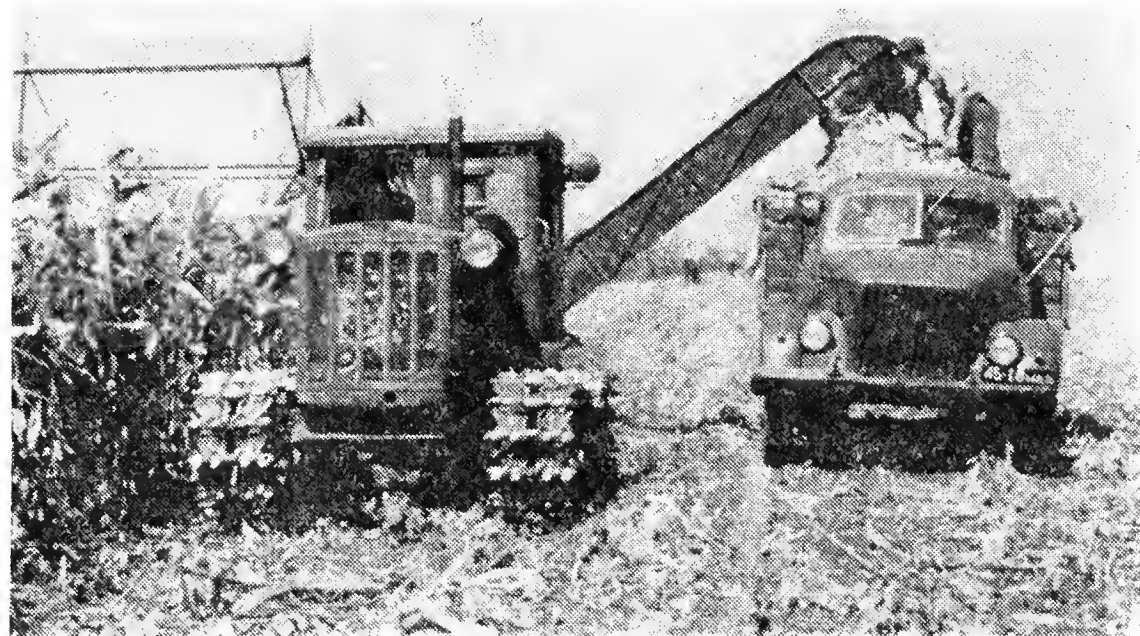
Although I couldn't get used to caviar at every meal, even breakfast, we were fed well and often. Even on planes, meals consisted of several courses. I thoroughly enjoyed their cabbage soup, and the ice cream was the good old kind made with lots of cream. We wondered why they served chicken so often until we learned it was so expensive it was almost considered a delicacy. We saw scrawny little things on the market selling at \$1.75 a pound.

Officially, there are no "open" markets in Moscow. Food, like almost everything else, is sold through State outlets at prices set by the State. However, four of us went to an open market early one morning and found a couple of acres of vegetables, fruits, meats, flowers — even pickles—that farm men and women had brought in to sell at prices set by supply and demand.

It was here we learned why it took 55 percent of their income to buy food—veal selling at \$1.00 to \$1.50 a pound, eggs 9 cents each, cooking onions 25 cents a pound, watermelon 25 cents a pound, pears \$1.25 a pound. One woman had flown by jet that morning 600 miles bringing two sacks of Persian melons. She sold them for enough to pay the round-trip fare and show a nice profit. She planned to shop in the city and fly home that afternoon.

Such markets are non-existent according to the Supreme Soviet, but we were told that the State supplies the buildings, counters, scales, etc., for 12 of them in Moscow. We were

I took these two pictures from the same spot in a 175-acre field of corn for silage; we estimated its yield at 10 tons per acre. The huge tractor pulled a forage harvester at about 10 miles an hour that was cutting, chopping and delivering to the dump truck 4 rows at once. Three empty trucks were following, ready to move into place. The jag of corn on the little ox-drawn wagon had been cut and loaded by hand and was off on a one-and-a-half mile trip to trench silos. This 16,500-acre farm had 35 tractors, 243 horses and many working oxen.



CURTAIN PUZZLE

told that people shopped very early at these markets if they wanted any decent choice. At State stores prices were lower, but stocks were such that women lined up before they opened if they wanted to get meat that day. The State stores stopped selling at 4 p.m., even if full of waiting customers. Private enterprises with little tables set up on the street were a common sight. If they had any kind of foodstuff, from ice cream to cabbages, there would be an immediate line of waiting buyers.

I don't mean to infer here that people don't have enough to eat. To the contrary, the crowds we saw were about as healthy-looking and certainly more robust than any comparable crowds of Americans I've seen. There just isn't the choice of food, and there's not enough of it to permit wasting any. For instance, the skinned heads of sheep, calves, etc., and the thoroughly washed offal from carcasses are bought by the pound at the open market.

Three of us skipped some sight-seeing to spend a couple of hours in stores, including the famous State-owned Gum Department Store across Red Square from the Kremlin. Consumer items seemed really scarce and prices as high as for food. A man's suit was about a month's pay, the lowest-priced men's oxfords, \$45, so most men wore sandals at \$9 or \$10, and women's print dress material was \$6.95 a yard—and we were told that wool of about \$3 a yard value in New York was offered at \$45 a yard. I didn't see a hardware store. Maybe they are not needed. What would an individual without a home, garage, basement workshop or car do with a hammer, saw, pliers, or even a faucet washer?

Not All Russians

We hadn't been behind the Iron Curtain a day before two things were impressed upon us that helped us to better understand some of the puzzling things. First, the Soviet Union is **not** Russia. Russia is but one of 15 Republics in the U.S.S.R. As in our states, each has its own constitution and its own governing body. The Supreme Soviet compares to our federal government in that its 1,443 deputies are elected from the Republics after being nominated by different factions such as workers, soldiers and farmers (whom they call peasants). We were told that 45 percent of the deputies are workers and 55 percent "intelligentsia" (professional people such as teachers and doctors). The deputies elect their chairman—Mr. Khrushchev.

There are 100 nationalities in the 15 Republics. The 20 million books in the Lenin Library are in 89 "local" languages, as well as 49 foreign languages. What's more, at least some of the people in some of the other Republics bitterly resent being called Russians. I had a Ukrainian straighten me out on that one, and one of our men almost got spit on when he made a similar mistake in Moldavia. (We might get about the same reaction from an older Georgia Cracker if we called him a Yankee!)

On that same first day, we also had to switch our thinking about the Communist Party membership. I had

heard that only 11 million actually were members of the Party, and thought, as do many of us, that it must not be very popular — that all the others must want something else. Not so, from what we saw and heard. Almost everyone seems to think Communism is best for everyone. They get into the Party only by **invitation** and the ambition of many young people is to work so hard for the State and Party that in a few years they may also display their party membership card. (Perhaps you'll remember that one of their astronauts was "honored" with membership after buzzing around the globe for several days.)

It would be impossible not to compare with the U. S. what they have and are doing in the Soviet, and to me we are far, far ahead. However, we felt that for a nation less than 50 years old that had been torn by war and had its population decimated only 20 years ago, remarkable progress had been made in many fields. The progress undoubtedly stems from the emphasis on education.

Before the 1917 revolution, only 20 percent of the children even got to school. Of those, very few got more than a few years. Today, edu-

cation by State-hired workers starts with the toddlers in nursery schools. At age 7 they enter regular school with Party-owned teachers, and they say that nowhere in the U.S.S.R. is there less than 8 years compulsory education. In the Russian Republic they must attend 9 years now, but under a new directive this is being increased to 11 years throughout the U.S.S.R. All youngsters, whether from peasant or Party-leader families, then take examinations to determine which are best qualified to go on to the 5-year courses in the Soviet's 40 universities.

The 10-year-old Moscow University now has 30,000 students, and the total enrollment in higher education in the whole Soviet is 2½ million. This emphasis on education, plus the people's obvious love for reading, may well be a big reason for the support of the Communist party, as the schools are under the direction of the Party and no one is allowed to import foreign books, brochures, or pamphlets not okayed by the customs men also employed by the Party. They even looked very suspiciously at some mimeographed sheets we had about how an American should behave in the Soviet!

Before World War II, there were

28,000 medical doctors in the U.S.S.R. Now, thanks to education, there are more than that in Moscow alone, and nearly half a million in the Soviet. Three-quarters of them are women.

The Party supports education — but it's a different story with religion. Most of the 150 museums in Moscow were once churches. Now there are only nine churches, mostly Russian Orthodox, for 7 million people. Some of our party attended what we were told was the only Protestant church. This Baptist Church has ten paid ministers. It seats about 400, but more than 2,000 stand in every available spot for Sunday morning services. From 1,200 to 1,500 crowd evening services Sunday and three week nights. The Party will not permit services outside the building, and prohibits Sunday School or any kind of youth education programs. Neither will they assign more space for the church.

"God?" said one party official. "Bah. We can produce without him!"

Yes, they have made progress, but as we left Moscow to visit the big farming areas hundreds of miles south, I had already made up my mind that any system built without personal incentive and which denied God was built on sand.



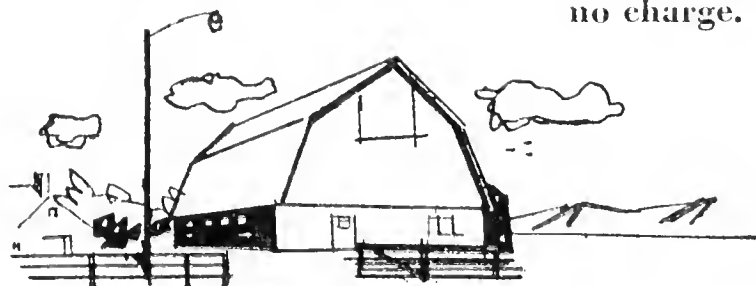
Your FARM needs

"Night Watchman"

Dusk to Dawn Light...

**for extra hours of Work and Recreation • for Safety
• for Property and Family Protection**

Ask your utility farm representative about the automatic electronically controlled "Night Watchman" for only \$4.95 a month, on an existing pole. Extra poles and lights are available for a small additional rental. Installation, maintenance and replacement are taken care of by Central Hudson at no charge.



CENTRAL HUDSON
GAS & ELECTRIC CORPORATION



Gayway Farm Notes

By HAROLD HAWLEY



SOFT CORN

The early frosts and freeze this year have left many farmers wondering what to do with part of their husking corn. It was hustle and rush to get the silage corn in before it dried out too much. The husking corn, if it wasn't mature will, of course, be high moisture and possibly "chaffy".

Some adjustments are possible, and we know a few farmers who are doing something about it. For instance, Ellis Hall of Cato will use feeder pigs to help use up part of his soft corn; another says he expects to crib his soft corn in his narrowest cribs -- and use it first before warm weather.

Most of ours is hard and good so we will also try to use the wet corn first. Corn Belt experience suggests that soft corn, even chaffy corn, is worth at least half the value of hard corn. Of course, much of the corn, even if not as hard and dry as usual, will be worth nearly as much as good corn after allowing for extra moisture. I suppose this means that

a little more corn must be put in the ration and fed a little more liberally in order to compensate for the poor quality.

VOLUNTEER BARLEY

One 35 acre field of winter barley was so badly lodged that a lot of the grain was lost (as well as the seeding in it). It reseeded and the field came up green and thick. Our milkers grazed over this for almost a month. It really helped out when the early freezes slowed up alfalfa pastures. The question before the house is this—would that volunteer barley come up next spring and make a crop next summer?

We will leave the barley until spring, and if it looks like anything we could leave it for pasture. If we seed DuPuit alfalfa in it to supplement what seedlings survived the lodging, we could probably have considerable pasture in that field next summer.

We did this with a field of Balboa rye one year. The rye was put on in the fall and grazed hard in the early spring. Then the March-sown alfalfa

came on to make a real growth after the rye was grazed off. What rye was left made seed which fell out and re-seeded. In August and September we had beautiful rye and alfalfa pasture.

80 YEARS OF CHANGE

My Dad recently celebrated his 80th birthday, so it was natural for us to be talking of the changes in agriculture in his lifetime.

One was from horses and human muscle to gasoline and electricity; another from walking plows to modern 4-5 bottom outfits; and from 2 or 3 section drags to large hydraulically-controlled disks and harrows. This is a long step, as is the increase in the size of the grain drill.

The small grains planted 80 years ago probably closely resembled today's grain in appearance. The genetic inheritance of these grains is much changed from formerly — thanks to the genius of the plant breeder.

Likewise the open pollinated corn of yesterday has given way to the fine hybrids now available. This reminds me of the difference in silo corns. Luce's Favorite, Eureka, and Pride of the North, etc., all of which were too late and too tall, have given way to hybrids of shorter stalk and shorter growing season, more grain, and greater length of ear. A ton of that green corn can hardly be compared to a ton of today's grain-rich silage.

Although they were probably not present as we know them when Dad was born, silos have become very much a part of the rural scene. Here again change continues. While we have largely moved from poured

silos to block silos (with now and again a glass-lined one) so have they changed in size. No longer is a 12 foot silo standard; now we have 14 footers and up to 20 feet for diameter with heights to 60 feet and over. All this, of course, to keep pace with the larger herds and more common year-round silage feeding.

To keep pace, the corn binder was improved with a bundle loader, with both methods needing a silo filler which grew in size and capacity as the need for speed increased as we went from stationary engines to tractor power. Then along came the forage harvester with trucks or wagon boxes having unloading devices to put the silage into the blowers, thus eliminating much of the heavy work.

The forage harvester with its need for fewer men did for silo filling what the combine did for the old threshing crew. It almost wiped out the neighborhood tradition of "swapping work," together with the big feed and good talk which went along with the hard sweaty work.

The hay for the cows no longer comes loose to the barn, nor is it largely timothy or timothy and clover as in the not-so-long-ago days. The pick-up baler and bale thrower apparently are but the current chapter in a long series of changes in hay making in one man's lifetime.

The horse-drawn mower and dump rake, hay cocks, pitch forks and rope have given way to side rakes, hay loaders, balers, windrowers, mow conveyors, and now, or soon, to pelleters. It's still a hot job, but much of the back work is gone with a crew of 2 or 3 putting up unheard-of tonnages. As one looks to the next step

(Continued on Page 24)

from the
HESS & CLARK
animal
health
center

double action

to destroy the bacteria that cause mastitis

PEN-FZ STARTS FAST...STAYS POTENT

Double-action Pen-FZ . . . with two highly effective drugs, nitrofurazone and penicillin. Pen-FZ kills and destroys mastitis causing germs in the affected areas of the udder.

Since Pen-FZ is effective against germs that cause most mastitis, it knocks out even the stubborn cases of mastitis. As a result, flare-ups are less of a problem with Pen-FZ on the job . . . you discard less milk over the long run. Double-action Pen-FZ is effective . . . powerful . . . and yet is safe and gentle for delicate udder tissues.

Depend on Pen-FZ. Protect herd health with double-action Pen-FZ . . . get effective germ killing power for good clear-up results.

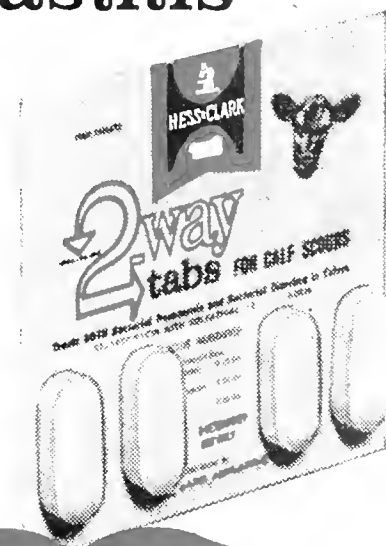
Milk taken from treated animals within 96 hours after the latest treatment must not be used for food.

Pen-FZ

HESS & CLARK, Ashland, Ohio
Division of Richardson Merrell Inc.

PUT MORE HEALTH INTO LIFE
BY STARVING GERMS TO DEATH

nitrofurans

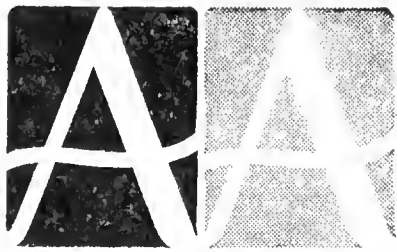


SPECIAL

FREE

Four Hess & Clark 2-Way Tabs that fight calf scours and pneumonia. A \$1.39 value . . . yours free with the purchase of the special Pen-FZ kit. 2-Way Tabs fight disease with Streptomycin and Sulfathiazole — work in the blood stream and the intestinal tract at the same time.

OFFER!



FARM DOLLAR GUIDE

AT THE UNIVERSITY OF WISCONSIN PORK HAS BEEN KEPT IN GOOD CONDITION for 150 days without refrigeration by giving it a sterilizing dose of radiation. Might have great marketing possibilities.

PURCHASED FEED COSTS HAVE AN IMPORTANT EFFECT ON NET INCOME. A rough rule is to keep them at or below 25% of milk check. Some dairymen keep cost below 20%. Ways to keep feed costs low are: produce plenty of high quality roughage; grow more grain; lower cost per ton by bulk buying, paying cash or watching for bargains. By the way, what percent of your milk check do you spend for feed?

A LONG-RANGE TEST AT CORNELL gave low, medium and high feed levels to groups of dairy calves. In general, the calves fed at a high level grew faster and produced more milk in the first lactation, but lagged slightly behind in later lactations, and went out of the herd earlier.

UNIVERSITY OF TENNESSEE REPORTS that soap, detergents or drain cleaners in normal amounts will not slow down bacterial action in septic tanks. So-called "starters" are not necessary, and "chemical dissolvers" of sludge are not effective. Septic tanks should be pumped out when sludge is 18 to 24 inches deep.

REACTIONS TO SALE OF WHEAT TO RUSSIA vary widely. Big objection is selling at world price with taxpayers holding the bag for the export subsidy. However, the subsidy is paid on wheat exports no matter to whom sold, and holding wheat until it spoils costs taxpayers even more.

PACKED BY GROWERS, New York and New England Apple Institute is pushing an advertising and publicity program for McIntosh apples. Crop is characterized as one of the best in quality. In New Jersey, during past 6 years producers of asparagus, poultry products, potatoes and apples have spent \$1½ million in promoting their products.

A STUDY IN MARYLAND BRINGS CONCLUSION that bunker silos give cheapest storage of silage to 350 tons capacity; with more silage, concrete stave silos give lower storage costs. If losses can be kept below 10% unlined trenches give still lower costs.

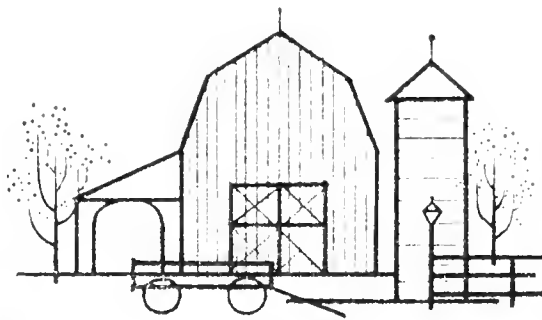
The Song of the Lazy Farmer



NO OTHER time of year at all is half as wonderful as fall. When else does nature go all out so you want joyfully to shout? Not winter's white nor summer's green, nor even springtime in between, puts on a colorful display to match what I can see today. The trees bear leaves of ev'ry hue, the sky was never quite so blue, and even brand-new snow can't be as white as clouds appear to me. And there is something 'bout the air with which there's nothing to compare: it has a fresher, cleaner smell, with just a touch of cold to tell that snow will fly before too long and winter winds will howl their song.

But even without painted trees or touch of winter on the breeze, I'd still like autumn much the best because it gives more time to rest. Oh, sure, if you're like neighbor is and like to run and zip and whiz,

you're in a sweat to pick the corn and help the fall pigs to be born; or else you're patching up the shed and reaching 'way above your head to get the storm sash all put in before the zero nights begin. But all that kind of stuff can wait, next month ain't going to be too late; besides, there's not much time left yet in which it's warm enough to set and rest beneath my fav'rte tree where Jane Mirandy leaves me be.



Goulds Perma-Flow System offers a new degree of dependability and beauty

NEW Water system won't waterlog, never needs repriming



What's the major cause of water system breakdowns? The pressure tank filling up with water. The new Goulds Perma-Flow puts an absolute end to this problem. Reason: the famous Goulds self-priming jet pump is mounted on a Medalist® Perma Pressure tank. This is the patented tank that has an air seal which keeps the air and water in the tank separated. Great idea, but how good is it? This good: The tank and all its dependability features are guaranteed for 5 years. Many other advantages to this system. See your local Goulds dealer.

This is a pump, but with true appliance beauty. The two-tone blue finish is in stylist-selected colors. Its beauty is second only to its dependability. The pump has a baked-on, corrosion-resistant finish, and the tank has an exclusive Everglaze® metallic lining. The Goulds Perma-Flow is a completely corrosion-resistant system. Also, the built-in air seal keeps air and water separate and stops oxidation. The Perma-Flow can be found only at your Goulds dealer. Why not see him soon. He offers the new Goulds Water System on easy monthly terms.

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GOULDS  PUMPS

FREE... WATER PUMP SELECTION GUIDE

This 12-page booklet is packed with facts about wells and water systems. Tells you what to look for in both wells and water systems. Gives data and ratings on both jet and submersible types of pumps. Diagram in book shows Perma-Flow tank principle of operation and lists additional benefits.

GOULDS PUMPS, INC., Dept AA-113, Seneca Falls, N. Y.

Please send the Goulds Water Pump Selection Guide to:

Name

Address

City County State



"IT WORKS!"

How true you are when you state that our city friends take a dim view of farmers. I am especially aware of this "problem" because I live near a fairly large city, have many city friends, and even work with city people in a Syracuse industry in addition to working on the soil.

Our city people take a dim view of us because they are in the dark regarding our farming industry, all the way from the know-how to the costs involved. Recently, a city friend was admiring my tractor and the equipment attached to it, as well as the job it was doing on the soil. When asked what he thought the equipment was worth, he estimated about \$1,400. Was he surprised when I told him it was worth close to \$4,000?

At last year's State Fair, which luckily is in the Syracuse area, I was touring the dairy building about five o'clock one evening, when I noticed a young city couple eagerly watching a farmer milk a cow by hand. Just watching was an experience they had only read about; the owner went further and asked the city girl if she wanted to try milking the cow and she shyly said no. After several minutes of coaxing by her husband, she did agree to try her luck at one of the farmer's most time-consuming chores. After several unsuccessful attempts, she finally got a few drops of milk, which made her eyes light up like light bulbs. She smiled from ear to ear, and all she could say was, "It works, it works!"

Of course it works, and of course machinery costs large sums of money, etc. But how else do they know it except by coming in actual contact with the farmer. Probably the best contact is the State Exposition right here in Syracuse. During Exposition week I am asked many questions by my city friends about things they see at the Fair, in addition to overhearing many comments about things they have learned regarding the business of agriculture. No doubt the same applies to county fairs.

I feel we should have more contact by getting the city people to the farms for visits, if only for an hour. We should open our barns and operations to the public and urge them to come. This could be done by posting a uniform welcome sign in front, advertising open house one day or even a half day each week. Such a project could even be coordinated by the County Extension Service so that a different dairy farm could be open to the public each Saturday or Sunday. Possibly apple orchards and truck farms could also be open during the harvest season.

There is no doubt that the farmer is lacking a public relations program. The only way we are going to initiate such a program is to expose

our city friends to farm operations. We must continue to take our stock and machinery to state and county fairs, and we must initiate a program to bring our city friends to the farm for firsthand observation and education. — *James E. Marsh, East Syracuse, N. Y.*

BETTER UNDERSTANDING NEEDED

That many of our city friends take a dim view of farmers is true not only of today but has been for a long, long time. Strange as it may

seem to us, these dim views are expressed not only by our city friends but unfortunately also by many country dwellers.

When I entered this country at Newport News on January 13, 1951, as an immigrant from Austria, I didn't know what the future would have in store for me. All I knew was that I would work at my uncle's farm, which had just been started, and was located somewhere in Columbia County. Having a B.S. degree in business administration surely wouldn't help me a lot—this I could understand. But one thing I had to my advantage, I was very hardy — having had almost four long years outdoors, sleeping at 40 degrees below zero weather in tents, digging holes, cleaning equipment, and marching nearly 2,000 miles with the German Army in Russia.

Having arrived at my new destination—a lovely place called Rolling Hill Farm located between North Hillsdale and Harlemlville on the outskirts of the beautiful Berkshires — I got immediately acquainted with my four future girls, one Guernsey

and three Holsteins. The next day I stood already in the "gutter" and I don't have to tell you how I felt. A few weeks back the purchase manager of an Austrian oil company, and now with a shovel up to my ankles in manure! But as I said before, we human beings get used to many things during our lives.

To make the story short, during the seven years I cleared more than 100 acres of land, raised the herd from four to twenty-eight, and fenced more than 300 acres of property. Besides this, I helped our neighbors during the haying season, cut pulpwood in winter for some mills and dug cesspools for the villagers. What did I get for all my hard work? My neighbors know—and you, dear readers, may guess why I landed at Columbia University.

What the city dweller really needs is to hear more about the "family farmer" as about the big cooperations. And, without exaggeration, I think of your excellent newspaper as one of the most successful approaches to a better understanding between these two groups.

Next to it, I believe, come the newly created picnic facilities and hunting privileges which constructively influenced these relationships. I remember how many times a hunter warned himself up in the barn, watching me milking one cow after the other, brushing them, cleaning the barn, etc., perhaps for the first time in his life seeing life on a small farm. Let's be honest, who of us, buying the products in our big super markets, is thinking even for one minute of the farmer when he reaches for an apple, a tomato, or a carton of eggs?

Wishing your paper the same success as in the past, and hoping that in the near future more people, especially those in the cities, may become subscribers.—*Walter Schober, White Plains, N. Y.*

NEVER MISSES

Non-farmers and farmers alike in the WGY (Schenectady) radio audience look upon the "Farm Paper of the Air" as a livewire program. Broadcast every day (except Saturday and Sunday) at 12:15 p.m., the agenda includes a question and answer forum on gardens and plant life; information about weather, markets, and agricultural legislation; talks of farm folklore and the "old days," and educational and vocational guidance.

City dwellers seem to crowd the forum. Queries about flowering shrubs and suburban gardens outnumber rural questions. The Friday program, educational in purpose, introduces professors from agricultural colleges and institutes, members of 4-H and Future Farmers of America in round-table discussions, students, guidance directors and principals from central rural schools. The program seems to take for granted that sensible Americans are interested in the farm picture.

Don Tuttle, the M.C. of this long-lived WGY feature, keeps his material timely and accurate. He links his urban and rural audiences with a spirit of honesty, enthusiasm, and good will.

I have never lived on a farm, but I never miss this program if I can help it. It has underlined my respect for the farmer, who is still this country's vitality and its backbone. —*Mary Kosegarten, Nassau, New York*

A Message to Our Readers

What's Going On?

WE BELIEVE publishing a farm magazine to be one of the most challenging and unusual businesses in the world. Your *American Agriculturist* has been published for 121 consecutive years, yet every month the staff has to produce something that has never been produced before. You, and about 200,000 other Northeast subscribers, pay in advance for something you have never seen.

A magazine, like a business of any kind, lives and thrives only by staying young, vital and up-to-date. This means that we, as publishers, must constantly make changes to meet your needs and serve you better. The advertisers who bring you information on new equipment, materials and appliances have the same job. No matter how good a 1963 tractor or car may be, it's the manufacturer's job to make a still better produce for you in 1964. If he doesn't he'll fail—even as a farmer would fail if he didn't use new methods and modern machines.

We have made many changes and there are more to come.

Changes have come about gradually since those days more than 100 years ago when we couldn't even print pictures, and when the type, set by hand, was so tiny it was an eye strain. We moved along to woodcuts, and then into reproducing pictures that looked pretty muddy by today's standards. Gradually the type got better, the pictures clearer, and the content far more valuable as our editors moved around in modern cars on good roads. We even added costly color cylinders to make the *A. A.* more attractive and easier to read.

Within the past three years we have changed to much whiter paper, modern type faces, larger pictures—and have been displaying feature stories to make them easier to read than ever. We even installed an electronic gadget to give us top-quality reproduction of pictures.

But we are not stopping there.

During 1963, by having part of the paper printed outside our own plant, we experimented in the use of more color, even to bringing you pictures of things as you see them—in their real natural colors.

After three years of checking (and, incidentally, after learning that a printing press to do the job we wanted would cost around \$840,000), we decided to have our whole paper printed by the latest offset lithography method by one of the finest printers in America. In this new modern plant, we can use color on all pages, 4-color if we choose, and gradually, as we become familiar with the new printing method, improve appearance to match the quality of the contents.

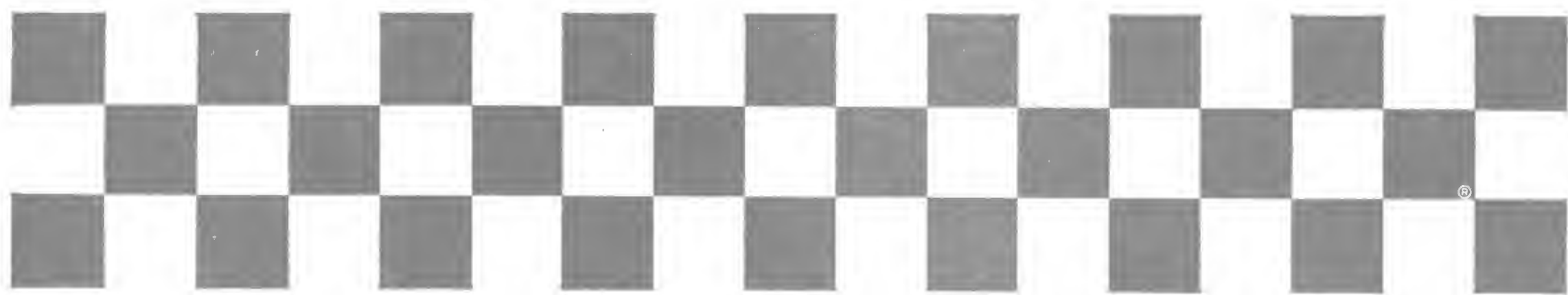
One of the first things you'll notice, starting in January, is the legibility of a new, larger type face on a new offset paper.

One thing we are NOT going to change:

Our determination that the contents of each issue shall continue to be such that we live up to the title of "The Leading Farm Paper of the Northeast."

Sincerely yours,

Jim Hall, Publisher



New York CHECKERBOARD NEWS®

...From the Purina Service Centers serving New York farmers

9 Purina Dairy Research
Center Heifers that
freshened at 22 months

**AVERAGED
10,808 LBS. MILK
IN THEIR FIRST
LACTATION!**

Here's proof that early freshening pays off! These heifers averaged freshening at only 22 months instead of the normal average of about 31 months... nearly a full lactation early! So each of them produced nearly 10,808 lbs. of "extra" milk in their first 305-day lactation, compared to heifers freshening at 31 months.

No. P 10's first calf was born dead. She started slowly, pulling down the average of the group. She produced only 6,697 lbs. of milk. On May 16, 1963, No. P 10 had a normal calving and she's now off to a much better start.



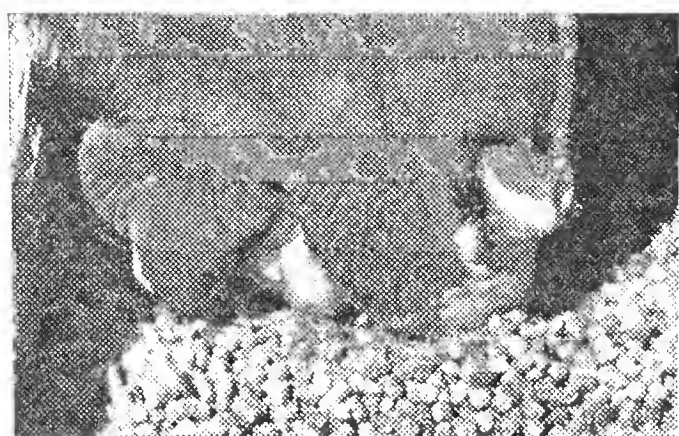
Here's how the 9 Purina heifers look today. Some of them are already in their second lactation and getting off to a fine start.

Projected mature production of these heifers (based on standard U.S.D.A. factors) figures 14,499 lbs. One, P 11, has an estimated mature production of 19,062 lbs. of milk!

Years of research at the Purina Dairy Research Center, Gray Summit, Mo., has

built feeding and management programs to help you grow animals fast for early breeding and freshening... for long, profitable milking lives.

Ask your Purina Serviceman to tell you more about proved Purina Dairy Feeding Programs. Pay him a visit... soon!



That's Right... No Hay!

Purina's new Horse Chow Checkers completely eliminate the fuss and muss of feeding hay. There's no hay to buy... store... feed. Purina Horse Chow Checkers have the hay built right in.

Feed your horses this convenient, revolutionary way. All that your horses need comes in easy-to-handle 50-lb. bags of Purina Horse Chow Checkers. If hay is no problem, get Purina Omolene, a favorite grain ration of horsemen for more than 45 years. Get these research-proved products today at the Store with the Checkerboard Sign.

His last meal... PURINA RAT-KILL!

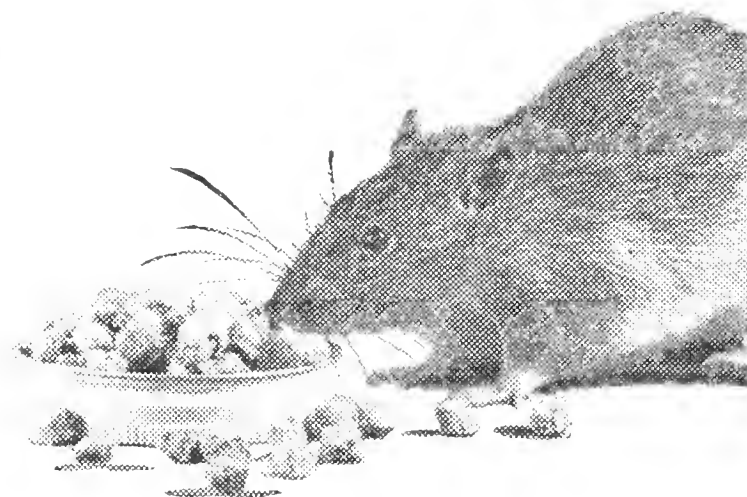
This rat has had it! He's eating himself to death on Purina Rat-Kill. It's so palatable, rats love it better than grain, and feed.

Purina Rat-Kill stays fresh and tasty after many other baits have lost their appetite appeal. Rats carry the chunk-style pieces back to their nest and feed it to the whole

family. Soon they'll be goners! One or two handy five-pound packages of Rat-Kill are just about right for most farms.

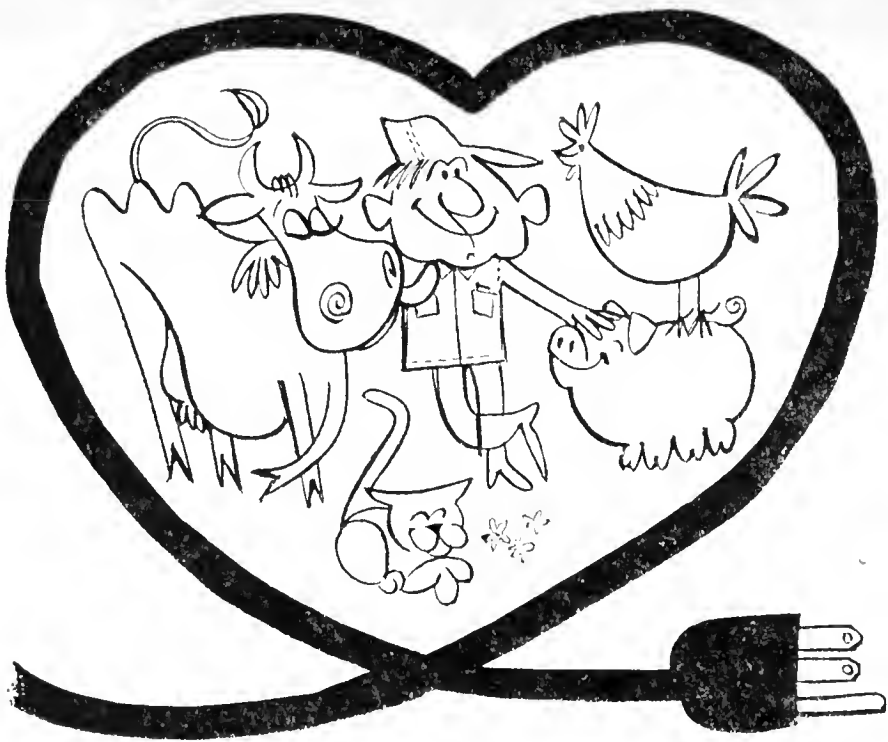
Ask your Purina Serviceman for enough Rat-Kill to help prevent harvest-time losses from rats.

YOU'LL FIND THAT RATS
REALLY LOVE RAT-KILL... TO DEATH!



LOW COST PRODUCTION...

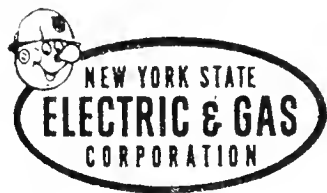
the reason why more farmers feed PURINA®



All around the farm...
ELECTRIC HEAT
 makes warm friends

Chicks and cows and people all produce more when there's proper heat on the farm. In the milk house . . . the brooder house . . . the milk parlor . . . *wherever* extra heat is needed in or around your farm buildings—supplemental electric heat can be installed easily, at low cost and gives you precision control for protection and comfort.

See your Farm Service Representative . . . he can help you plan electric heat for better production, more profits on your farm and in your home, too.



YOU FARM BETTER—Electrically!

COST CUTTINGEST!

BUSH-HOG
 all purpose—heavy duty
ROTARY CUTTER

*does everything . . .
 faster, cheaper, better!*

MOWS!
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 WINDROWS!
 CLEARS LAND!

. . . outworks,
 outlasts all others!

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 SELMA, ALABAMA

**"Fastest Heat
 ON
 Two Wheels..."**

COSTS LESS TOO

**CENTURY
 OIL FIRED
 PORTABLE HEATER**

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 Name of nearest dealer

\$129⁵⁰

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CENTURY ENGINEERING CORP.
 CEDAR RAPIDS IOWA, 52401

Wholesale Distributor For The
 'FASTEST HEAT ON TWO WHEELS'

TUDOR & JONES
 WEEDSPORT, NEW YORK

Contact us for name
 of your nearest dealer

Science Shrinks Piles New Way Without Surgery Stops Itch—Relieves Pain

New York, N. Y. (Special) — For the first time science has found a new healing substance with the astonishing ability to shrink hemorrhoids and to relieve pain—without surgery.

In case after case, while gently relieving pain, actual reduction (shrinkage) took place.

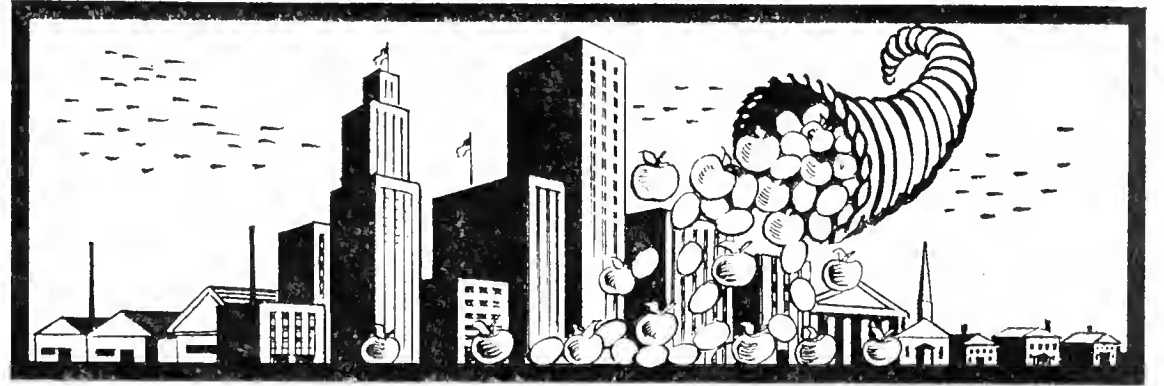
Most amazing of all—results were so thorough that sufferers made aston-

ishing statements like "Piles have ceased to be a problem!"

The secret is a new healing substance (Bio-Dyne®)—discovery of a world-famous research institute.

This substance is now available in suppository or ointment form under the name *Preparation H*®. At all drug counters.

NORTHEAST CORNUCOPIA*



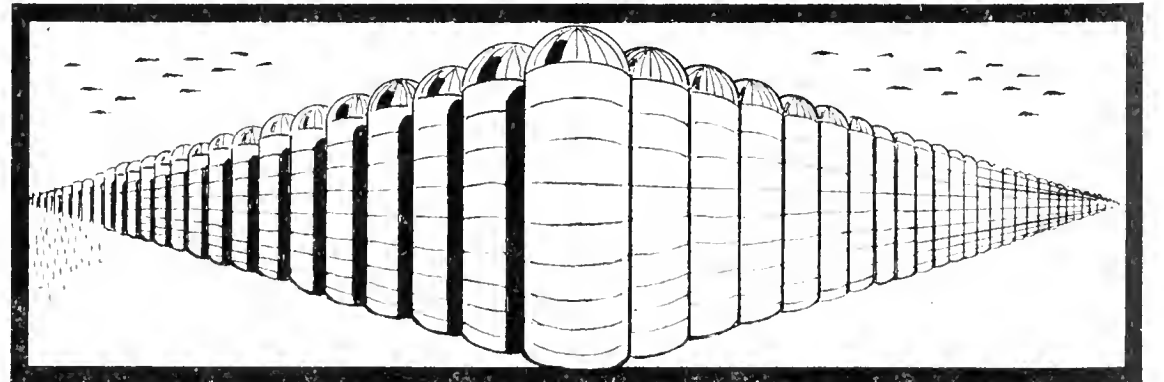
EGGS AND APPLES—In 1962, enough apples were produced in the Northeast to provide an apple every day during a whole year for all the 17,000,000 New York State residents. Eggs were produced in the region at the rate of 26,104,000 every day!



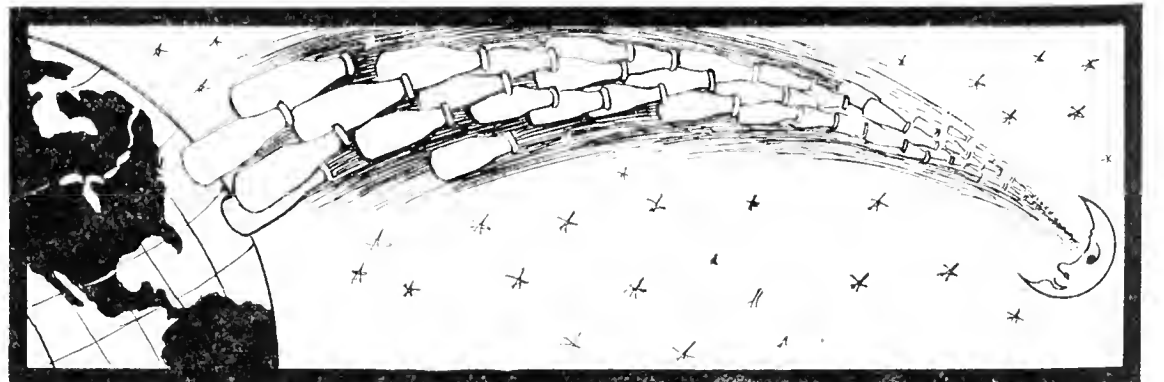
BROILERS—Imagine that all the Northeast broilers produced in a year were served at one gigantic barbeque—362,493,333 people would sit down to eat!



DAIRY CATTLE—Suppose all the northeastern dairy cattle were walking single file along a modern Chisholm Trail. The trail would stretch from Boston, Massachusetts, to Seattle, Washington, and then to San Francisco down in the land of the Golden Gate!



CORN SILAGE—It would take 26,500 silos, each 20' x 50', to hold the 10.6 million tons of corn silage produced a year ago in the Northeast!

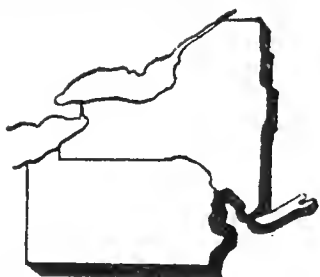


MILK—If all the milk produced annually in the region were put in quart bottles placed end to end, the line of bottles would reach to the moon, make a return bridge to the earth and then reach back again to the moon!

*1962 production in New England, New Jersey, New York, and Pennsylvania.

— American Agriculturist, November, 1963

News and Views from NEW YORK AND PENNSYLVANIA



Paul Landon (right), bank farm loan representative at Trumansburg, N. Y., shows poultryman Stanley Koskinen a scale model of a billboard promoting eggs.

The Cooperative G.L.F. Exchange has arranged to have 29 full-sized billboard advertisements promoting egg consumption placed over its territory during the month of November, as a follow-up of the nationally-observed "EGGTOBER."

Incidentally, the G.L.F. reports that with a cash patronage refund of \$1,000,000 — plus a 6% dividend on common stock — farmer members will receive some \$4,150,000 in cash returns in 1963. The patronage refund is based on two-thirds of one percent on purchases of all G.L.F. commodities made by members and contract purchasers between July 1, 1962 and June 30, 1963. More than 60,000 farmer members in New York, New Jersey, and northern Pennsylvania were eligible for the refund.

Market Center — The Genesee Valley Regional Market Authority has just released a brochure describing the facilities, copies of which are available from the Genesee Valley Regional Market Authority, 900 Jefferson Road, Rochester 23, N. Y.

Dairy Shrine Club — The 1963 Guest of Honor at the recent annual meeting of this group was Maurice Sheldon Prescott, Lacona, N. Y., well-known editor and publisher of the Holstein-Friesian World. Mr. Prescott authored "Holstein-Friesian History," and in 1922 originated the All American Holstein-Friesian Selections, since adopted by the other breed associations.

Changes — Fred P. Corey, who for the past six years has been executive secretary of the Western New York Apple Growers Association and New York Cherry Growers Association, has resigned to accept a similar position as executive vice president of the National Apple Institute. J. Douglas Sinclair, Geneseo, N. Y., who has been assistant manager for the past four years, succeeds Mr. Corey.

Random Sample Tests — Five Pennsylvania poultry breeders were among those who finished in the top quartile of the State's sixth annual Random Sample Egg Laying Test. They are: Greider Leghorn Farms, Inc., Mount Joy; Guy A. Leader & Sons, Inc., York; Pennsylvania Farm Bureau Cooperative Association, Grantville; Hubbard Farms, Lancaster; and Cameron Leghorn Farm, Beaver Springs.

Soil Conservation — Seneca Soil Conservation District recently sent us a report of its activities — activities that are typical of the hundreds of

similar districts across the Northeast. It presented facts and figures on drainage by ditching or tile, installation of diversion ditches, tree planting, strip cropping, building farm ponds, and other work that "promotes the health, safety and general welfare of the people of the county."

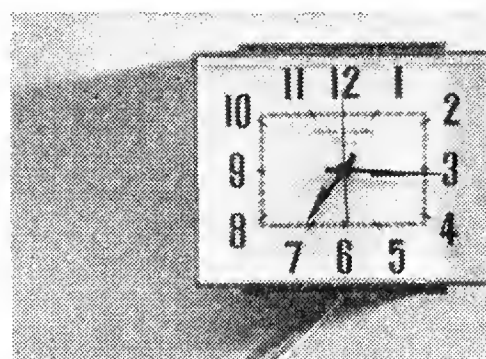
Spreading Leptospirosis — Research at the Animal Medical Center in New York indicates that fish may play a part in spreading this disease in livestock and humans. When a culture of leptospirosis was placed in tap water containing goldfish a prolonged infection of the gills and kidneys was observed. This disease causes about \$200,000,000 loss each year among livestock.

Dairy Bulls For Meat — Experiments at the Pennsylvania State University have shown that dairy bulls on feeding trials reached 800 pounds weight at 10 months of age as against 11 months for dairy steers. For 1,000 pound animals, the comparisons were 13 months for bulls and 14 months for steers. At the same time, the bulls on the average consumed 414 fewer pounds of feed; and regardless of whether they were bulls or steers, the 800 pound cattle ate 32 percent less feed than those weighing 1,000 pounds — and reached slaughter weight 87 days sooner.

Cited — Three New York State county agricultural agents were cited for outstanding contributions to agriculture by the National Association of County Agricultural Agents during September. The agents were: Ernest J. Cole, Tompkins County; William G. Howe, Cattaraugus County; and Earle A. Wilde, Sullivan County. All are graduates of Cornell University, and total 52 years of service.

State Amendments — The seven amendments to the New York State Constitution on which voters will pass November 5 include one liberalizing residence and absentee voting requirements for the offices of president and vice president of the United States; one on gubernatorial succession (when the lieutenant governor shall act as or become governor, etc.); one granting power to the Legislature to ensure continuity of State and local governmental operations in periods of emergency caused by enemy attack or disaster; one extending "home rule" safeguards to small villages and towns; an amendment permitting localities to exclude from debt limits indebtedness incurred for construction or reconstruction of sewage disposal facilities for 11-year period between January 1, 1962 and January 1, 1973.

No. 6 permits villages to increase pension benefits payable to retired members of village police of fire department, or to their dependents; and No. 7 concerns the conveyance of ten acres of forest preserve land to the village of Saranac Lake in exchange for thirty acres of forest land to be conveyed to the State. Approval is necessary because the Constitution says forest preserve land must be "forever wild." The New York State Farm Bureau recommends approval of Nos. 1, 2, 3, 4, 5, and 7, and has no objection to No. 6.



Two Essential Harvesting Tools!!



Your clock and radio are two essential harvesting tools. From the day the first field of early-cut hay is mowed in unpredictable May, through the day the last field of late-maturing corn for grain is picked in blustery December. And that same handy harvest help is at your finger tips for every crop from Apples to Zinnias.

Your best radio guide to good harvesting weather is WEATHER ROUNDUP at 6:25 and 7:15 A.M.; 12:15 and 6:15 P.M., over these stations.

FM STATIONS

Auburn	WMBO-FM	96.1 mc.
Binghamton	WKOP-FM	99.1 mc.
Bristol Center-Rochester	WMIV-FM	95.1 mc.
Cherry Valley-Albany	WJIV-FM	101.9 mc.
DeRuyter-Syracuse	WOIV-FM	105.1 mc.
Hornell	WWHG-FM	105.3 mc.
Ithaca Elmira	WEIV-FM	103.7 mc.
Jamestown	WJTN-FM	93.3 mc.
Niagara Falls-Buffalo	WHLD-FM	98.5 mc.
Olean	WHDL-FM	95.7 mc.
Wethersfield-Buffalo	WEIV-FM	107.7 mc.

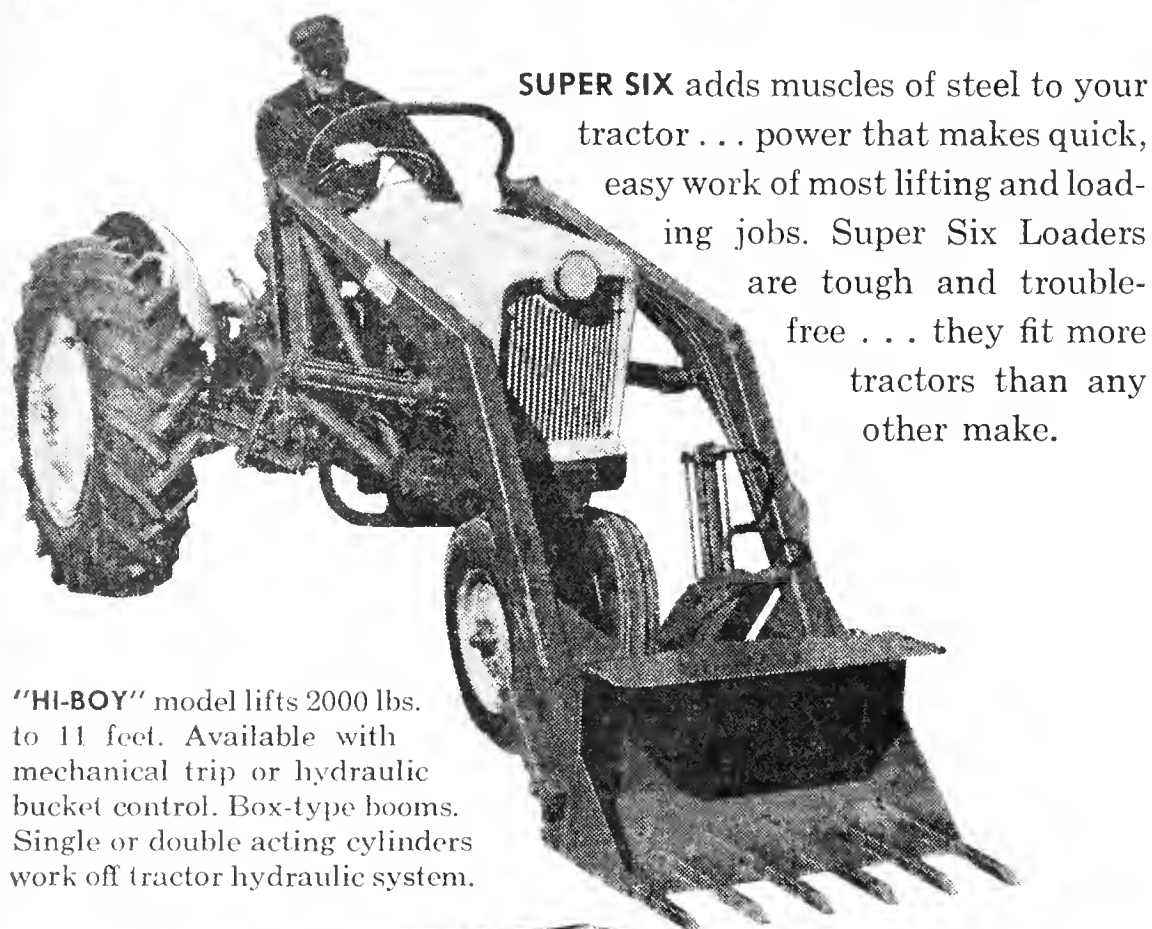
AM STATIONS

Auburn	WMBO	1340 kc.	Olean	WHDL	1450 kc.
Binghamton	WKOP	1360 kc.	Remsen	WREM	1480 kc.
Boonville	WBRV	900 kc.	Rochester	WROC	1280 kc.
Dunkirk	WDOE	1410 kc.	Salamanca	WGGQ	1590 kc.
Elmira	WENY	1230 kc.	Saratoga		
Glens Falls	WSET	1410 kc.	Springs	WSPN	900 kc.
Gloversville	WENT	1340 kc.	Sayre, Pa.	WATS	960 kc.
Hornell	WWHG	1320 kc.	Schenectady	WGY	810 kc.
Ithaca	WTKO	1470 kc.	Syracuse	WHEN	620 kc.
Jamestown	WJTN	1240 kc.	Syracuse	WOLF	1490 kc.
Niagara Falls	WHLD	1270 kc.	Utica	WBVM	1550 kc.
			Walton	WDLA	1270 kc.

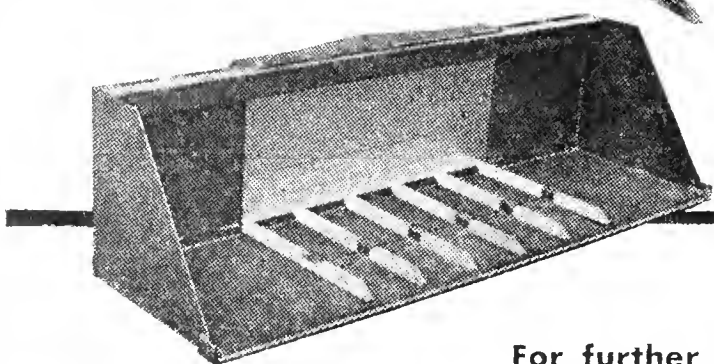
Northeast Radio Network

Ithaca, New York

Super Six loaders are built to make winter chores easier!



"HI-BOY" model lifts 2000 lbs. to 11 feet. Available with mechanical trip or hydraulic bucket control. Box-type booms. Single or double acting cylinders work off tractor hydraulic system.



6 1/2' SNOW SCOOP easily attaches to "HI-BOY" manure fork. Ideal for opening roadways, clearing yards, feedlots, etc.

For further information write:

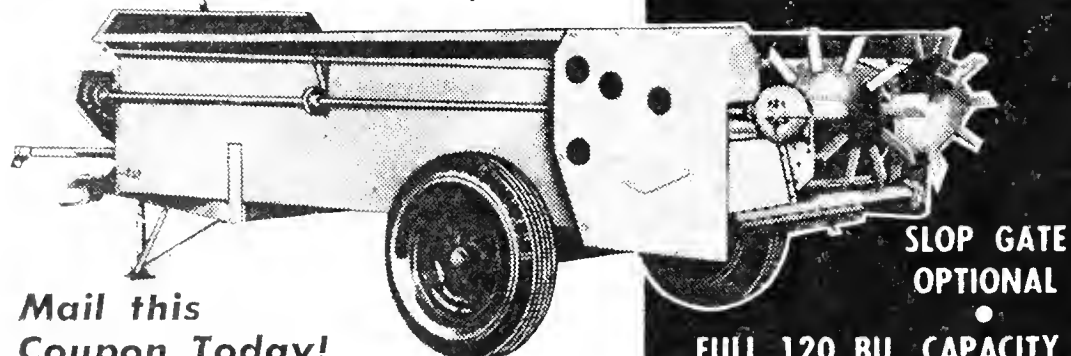
SUPER SIX
Dept. AA-1131
121 Washington So.
Hopkins, Minn.

the **Cobey** P-T-O ECONOMY CHAMP is for YOU

if you want to save up to \$128.00 on a Spreader!

- Tractor-seat, single-lever spreading control.
- Lowest headroom loading requirement.
- Wide flare box permits crowned loads.
- Safe — no open chains or sprockets.
- No lifting of load when hitching.
- No tools needed to break P-T-O connection.
- Corkscrew beater spreads fine in minimum time — in all kinds of weather.

THE COBEY CORPORATION
Galion, Ohio



Mail this Coupon Today!

Gentlemen: Please send complete data on your Economy Spreader and Folder on other Cobey Haulage Equipment.

Name _____ Address _____
City _____ State _____

— and you get **MUCH MORE!**

PINTLE-TYPE CONVEYOR CHAINS OPTIONAL

STEEL FLOOR, SIDES AND HEAD SHEET
Guaranteed AGAINST CORROSION

DUAL PURPOSE SPREADER OR SELF-UNLOADING WAGON

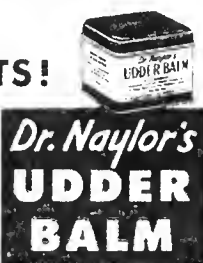
SLOP GATE OPTIONAL

FULL 120 BU. CAPACITY

Soften **UDDERS!** Heal **TEATS!**

The same antiseptic ointment in which Dr. Naylor Medicated Test Dilators are packed. Designed to relieve soreness... congestion. You will like this modern, more effective medication for Tender Udders, Sore Teats. \$1 at drug and farm stores or write.

H. W. NAYLOR CO., MORRIS 4, N. Y.



FARMERS FRIEND PROTEIN BLOCKS AND MINERAL BLOCKS

See Your Local Feed Dealer or Write
FARMERS FRIEND CO. NAPOLEON, OHIO



HOW TO LOSE FRIENDS

(Continued from Page 8)

believe what you and I say, but you can count on it that **they believe the things we do.** There is no point in declaring to your neighbor that you believe in temperance if he sees you staggering around your yard in the evening, or that your home is tranquil and serene if noisy arguments between you and your wife keep him awake at night.

It is not particularly unusual for a man or a group to deserve public approval and not get it, for lack of public knowledge and understanding. It is also possible that shrewd gimmicks or pious pronouncements may bring, for a time, public approval which is undeserved. It is not possible, however, to fool all of the people much of the time.

To the extent that any group, agriculture included, may have skeletons with their toes sticking out of the closet, or off-color chickens trying to get home to roost, good public relations is patently impossible until the skeletons are disposed of and the chickens caught and culled. No public relations program can make the public love anybody merely because he longs to be loved.



OTHERS GET SUBSIDIES TOO!

Far from being an effective answer to an accusation, this approach constitutes an admission of the charge.

It suggests not only that the charge is accurate, but that the defendant was conscious of guilt before the charge was made.

Have you ever heard of a policeman who caught a driver speeding, and then let him go because he explained that another car was speeding too? Have you ever, as a child, been caught in the cookie jar, and escaped a whipping by explaining that Brother got some too?

Among all of the traps into which a public relations program for agriculture might fall, this one perhaps is most tempting.

The bait is particularly appealing, and there is plenty of it. The very magazines and newspapers which complain of agricultural subsidies are delivered to their readers at subsidized postal rates. The farmer is compelled to pay subsidies in the form of tariffs to protect makers of much of what he buys. He could compile a list as long as his pantry shelf of people and places and projects that are taking cash, in one form or another, from the public till.

This is not to suggest that the farmer should not fight with all his strength against the absurdities of subsidy schemes which are carrying the United States toward socialized

impotency. On the contrary, he should: and absurdities which show up in agricultural programs should be included in his fight.

It is to say, however, that any effort to use the "others too" technique as a major component of his public relations program is foredoomed to failure. Such procedure might yield some inner satisfaction, and it might bring public wrath on "others too," but it will not improve the farmer's own position.



IT'S THE POLITICIANS' FAULT!

There is much which could be said in support of such an approach.

The case against the politician would run about like this: (1) developments growing out of federal farm programs are the major source of today's attacks against the farmer; (2) the politicians prepared these programs, passed them through Congress, and are responsible for them; (3) therefore, it is the politicians' fault that the farmer is under attack.

There is truth here. Appraised entirely in terms of public relations, the politician does in fact top the list of the farmer's liabilities. Whether he is denouncing the opposition or is waving from his medicine wagon a new nostrum of his own, he tends to view with excessive alarm or point with excessive pride. The press in turn gives intense attention to the more dramatic of his excesses, with the result that relationships between the farmer and the public are more often hurt than helped.

In all his maneuverings the politician can be depended on to give precedence to two jobs above all others. The first is to get elected. The second is to get re-elected.

Which is to say that any farmer who seriously believes that his political representatives are actually as interested in solving his problems as they are in securing his vote is likely to be kidding himself.

Why, then, should the idea that "It's the Politicians' Fault" be listed among pitfalls and fallacies in seeking solutions to the farmer's public relations problem? The answer is that this is an area in which the farmer now finds that he has been booby-trapped.

He can vent his anger against the politician and vow his vengeance on him until the roof reverberates, so long as it is the roof of his own meeting room. He can write blistering letters and adopt unrestrained resolutions, so long as he sends them to Washington instead of to the editor. Both procedures are entirely in order.

When Writing to Advertisers, Please Mention American Agriculturist

AND ANTAGONIZE PEOPLE



The farmer cannot, however, improve his public relations position to any important extent by publicly blaming the politician, for the consumer's rejoinder is going to run about as follows: (1) all the things for which you farmers are denouncing the politicians were indeed brought about by "farm" politicians, either directly or through "trades" with non-farm politicians; (2) you marked the ballots that provided the margin that put them in office; (3) therefore, it still is your fault.

Right or wrong — and, again, purely from a standpoint of public relations procedure — "It's the Politicians' Fault" is not an adequate base on which to build an effective program.



Since less than half of the nation's farmers are directly concerned with the programs and crops which are the most prominent targets of current attacks, it would be natural for many of the remainder to feel that they have no major interest in the matter, and no reason for special fuss or bother about it.

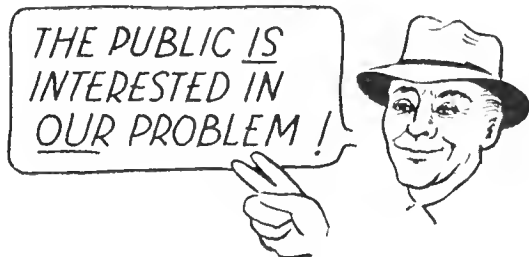
To yield to such a temptation is to take a head-in-the-sand position which leaves vital and tender parts conspicuously exposed. A man does not need to grow cotton or corn or wheat in order to share the consequences of continued public antagonism toward agriculture. The public is going to determine not only what happens to particular farm programs, but it will determine the treatment farmers receive on all sorts of subjects from foreign trade policies to marketing rules to rural roads.

This is no rifle-shooting situation in which clear distinctions are being made between one kind of farmer and another. It is more of a buck-shot barrage. When newspapers excite subscribers with tables of figures showing food costs in 1959 as compared with 1939, they do not bother to explain that bread is made from wheat which has a price support and that liver comes from livestock which do not. We have even seen coffee and tea prices included, with the implication that U.S. farmers are responsible for these too.

Protests against "agricultural" appropriations are not crop-by-crop complaints. They do not even distinguish, usually, between farm and non-farm benefits.

The most alarming element in the whole structure of today's attacks, in fact, is that they have gone far past the area of selective criticism. They have degenerated, in many instances, into a generalized campaign against all of agriculture and those associated with it.

As previously pointed out, the public likes its concepts simple; and there is no farmer in America, of any kind, who is not "involved."



Food and fiber in America today are taken for granted. The very fact of their abundance has tended to destroy the feeling of dependence and personal interest which the average consumer once held for the farmer.

City people are concerned about taxes, installment payments, places to park, the Cold War, and the high cost of high living standards. They look on the supermarket as the place to go for groceries in about the same way they look on the filling station as the place to stop for gas. They live on pavements, and view pastures only from car windows. They wouldn't know a kernel of wheat from a sunflower seed, and they don't care whether their mushrooms grow in dry deserts or damp basements.

They are busy trying to crowd more things into a day than it will hold; and they are striving to keep up with the Joneses under circumstances where even the Joneses are having trouble keeping up. They have personal, extensive, and frustrating problems of their own; and by and large they don't want to be bothered with the problems of agriculture.

They do become interested, it is true, but only when a farm problem becomes, quite concretely, their problem. An excellent example is the present interest of the public in agricultural surpluses. If the man-in-the-street had been concerned over these as a problem for farmers, he would have been concerned long ago. He would not have withheld his complaints until he found that these surpluses represent several billion dollars of tax liability, that it takes another billion or so each year to store them, and that the end is not yet.

It is his own highly personal problems of taxes and inflation which have stirred him — not his interest in the farmer's problems.

The point here is that a public relations program which assumes that the consumer is interested in the farmer's problems, as such, will be weak and unproductive. Strength and success can come only as the farmer's problems can be shown to be: (1) personal problems of the individual consumer and his family; (2) more important problems than some of the others which currently command his attention.

Mr. Milk Producer in Order No. 2... Do You Know The Answers?

1. Why should dairy farmers invest in milk promotion?

It is the only way you can meet the competition from other beverages and imitation dairy foods; protect your market for fresh fluid milk; and build sales. Remember, the producers own 95% of the investment in the dairy business. Promotion is up to you!

2. What does milk promotion include?

Nutrition and market research, education, advertising, merchandising, publicity and public relations.

3. Are these milk promotion activities truly "local" promotions?

Absolutely. The milk promotion programs made possible by producer support of ADA and Dairy Council of New York, are exclusively on fluid milk. They work to increase Class I sales in your market area.

4. Why are Class I sales so important?

Class I milk brings you about \$2 more per cwt. than Class III. The higher the Class I sale the higher the blend price. In 1962, Class I sales in Order #2 were 92 million pounds higher than in 1961. This increase raised producer income by more than \$1,880,000. In the first eight months of 1963, Class I sales were more than 75 million pounds over the same months in 1962. This brought producers nearly 1 1/2 million dollars added income.

5. Does this mean that milk promotion pays rather than costs?

Definitely, yes. This extra income is more than twice as much money as the producers invested at the rate of 3c per cwt. Anything less than 3c would not provide sufficient funds. Actually more than this is being spent to protect your market and increase sales.

6. What do you mean by "Protecting The Market?"

Meeting attacks which question milk's place in the diet and building a favorable image for milk.

7. What did you mean when you said "More than 3c per cwt. is being spent to promote milk sales?"

Milk dealers in central and eastern New York are putting 1 1/4c per cwt. of fluid sales into local Dairy Councils. They are buying thousands of ADA merchandising and advertising materials for use in food stores and on home delivery routes.

8. How is the 3c used?

Two cents is used for ADA activities and one cent is used for Dairy Council programs—all in the market area of Order #2.

9. What are these ADA activities?

Emphasis is on advertising fresh fluid milk in your market. The "ads" are in newspapers, on radio, billboards, and subway platforms. Beginning Sept. 18, "Ozzie and Harriet" (ABC-TV) will be promoting fluid milk in your markets. A wide variety of merchandising materials using the same sales message supplement the "ads". See question 7.

10. What are the Dairy Council programs?

Emphasis is on education. The professionally trained staffs of nutritionists and home economists work with and through educational, professional and consumer leaders in schools, hospitals, clinics, etc. These programs also include publicity for milk in newspapers and on radio and television.

Dairy Councils serve the market areas of the Capital District, Central New York, Southern Tier and the Mid-Hudson Area. The office in New York City serves the Greater New York area including northern New Jersey.

ADA and Dairy Council of New York is producer-financed and producer-directed. The Board of Directors consists of 28 dairy farmers. They represent 19 districts which cover the New York-New Jersey milkshed, the major cooperatives and two general farm organizations. The milk promotion programs, based on recognized nutrition and market research, make the best possible use of the services and materials of National Dairy Council and American Dairy Association.

AMERICAN DAIRY ASSOCIATION AND DAIRY COUNCIL OF NEW YORK

472 SOUTH SALINA STREET
SYRACUSE, NEW YORK

Gayway Farm Notes

(Continued from Page 16)

or steps it's easy to visualize per-
lets as eliminating much more labor.
The cows for whom all this field
work is done are not only more num-
erous than in Dad's boyhood, but
larger, gentler, more productive, and
more uniform in color, conformation,
and breeding. It's hard to find any
old blue roan cows any more, or
herds with 2, 3, or even 4 breeds
represented.
The increased care, the quantity
and quality of roughage and grain
fed to these cows bears little resem-
blance to the situation some years
ago. Remember the proponents of
the then newly-introduced Ayrshire
breed telling what good "rustlers"
they were? They were, too, but who

cares today? To get the kind of pro-
duction needed today a cow needn't
be much of a grazer or mountain
climber. All she must be able to do
is to stand somewhere and eat and
eat and eat!
Possibly one thing hasn't changed
much, though. Just as the hand milk-
er preferred an easy-milking bossy,
so does today's dairyman want a
fast and easy milker.
We have successfully altered the
cow's love life with artificial breed-
ing and have ended up ear-tagging
her for identification—hardly neces-
sary when the new-born calf ran
with its mother and the herd of 10
cows.
These and hundreds of other
changes have occurred; fertilizers,
pesticides, electric motors, running
water, the distraction of a radio in

the barn, milk substitutes for the
calves, the loss of so many enter-
prises from the scene, etc.
GREATEST CHANGE
But none of these changes are
greater than those in the farmer and
his family. The fiercely independent,
hard-fisted (and sometimes tight-
fisted) tiller of the soil has become
the less leisurely business man with
his wider variety of interests and
recreations.
He's learned to co-operate for the
general good. He's become more gen-
teel and refined — able to take his
place equally alongside his urban
brethren. He apparently has largely
learned to overcome his extreme
distaste for debts. He is learning to
live and make a living with time for
many things besides work. His chil-

dren need and get better schooling
and both urban and rural friend-
ships. His friends are people from all
walks of life. He may worship in the
city church several miles away, or
in the small country church, as he
wishes. Like his urban counterpart
he vacations near and far, attends
meetings and conventions, and reads,
watches, hears, and discusses today's
news today. All this and more
has come about during one man's
life.
Yet with all these changes, today's
farmer — like my father — still is
able to retain his love of the soil, his
pride in his own place, his eloseness
to his God and his family, and he
still marvels at the wonders of na-
ture as his new knowledge adds to
his understanding. As he has the
best of both the present and the past,
of the rural and the urban, today's
farmer is the lucky one if he but has
the vision to see it.
One time soon let's take a look
ahead at some of the changes yet to
come. So fantastic is the rate of
change that it's impossible to look
clearly even 10 years down the road,
much less 80, but it's fun—and pos-
sibly profitable — to be anticipating
where we are going in this rural
world of ours. In fact, with a little
shaping and planning on our part,
the rate and direction of change can
well make the years ahead that
much more profitable and pleasant.

ABOUT MILK

STANLEY W. BEAL, general man-
ager of the United Farmers of
New England, sees a better relation-
ship between the nation's milk sup-
ply and demand, leading to sounder
dairy farming with an encouraging
future. Speaking before membership
meetings throughout northern New
England, Mr. Beal reported sales of
over \$27,000,000 for the fiscal year,
and a volume of over 433 million
pounds of milk marketed by the
farmer-owned dairy cooperative.
Meanwhile, sales of fluid milk in
the market area of the New York-
New Jersey milk shed were 2.91 per-
cent higher in July than in the same
month in 1962, and there was a gain
of 2.3 percent in August. Sales of
fluid milk in August were the high-
est for that month in the history of
the Federal market Order.
Meanwhile, through their contri-
butions to the American Dairy Asso-
ciation, farmers will invest \$7,500,-
000 in 1964 in efforts to expand sales
of milk and other dairy foods.



NYABC

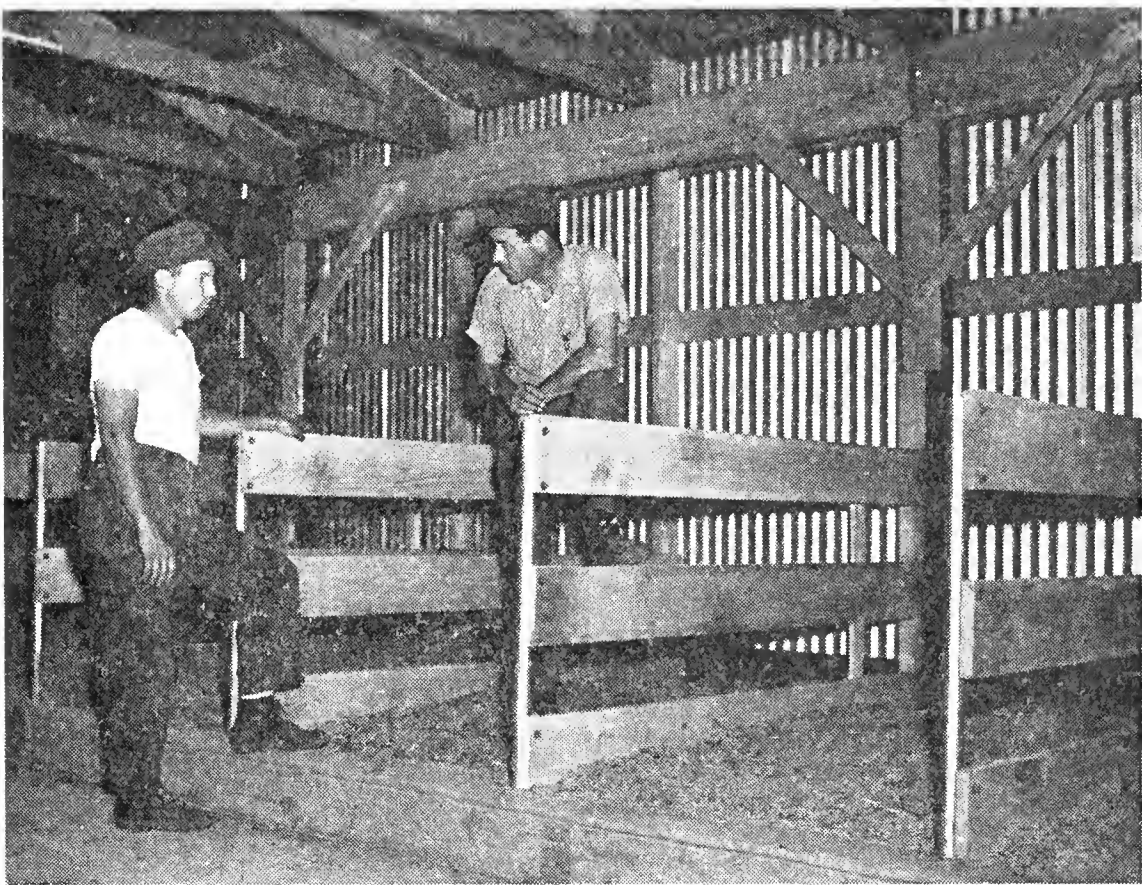
Profit-Plus Breeding

PROVED FOR PRODUCTION		
Production of daughters of NYABC AI Proved Sires approved for Regular Service.		
22 NYABC Holstein Sires	13,367M	483F
Diff. from breed DHIA av.	+506M	+20F
4 NYABC Guernsey Sires	9,113M	441F
Diff. from breed DHIA av.	+347M	+29F
4 NYABC Jersey Sires	8,417M	433F
Diff. from breed DHIA av.	+187M	+11F
3 NYABC Ayrshire Sires	10,690M	433F
Diff. from breed DHIA av.	+802M	+37F
2 NYABC Brown Swiss Sires	12,047M	486F
Diff. from breed DHIA av.	+766M	+24F

Profit-Plus Breeding—the ability
of NYABC AI Proved Sires to trans-
mit higher production at all herd
levels—is one reason why over 89%
of the services to NYABC dairy sires
during the past year were to AI
Proved Sires. Look at the production
figures. Then call your NYABC tech-
nician for a complete profit-plus
breeding program designed specially
for your herd.



Your Headquarters for Superior
AI Proved Sires



Jim Bult visits with county agent Don Thompson in the new stable.

New Free-Stall Barn

NICHOLAS Bult and his son Jim, of Castleton, New York, recently began using a new 72' x 206' free-stall dairy barn. It replaces a stanchion barn that burned last December 31st.

"We never thought we'd like loose housing," Jim says, "but we visited some other farms that have free-stall arrangement and found the cows clean. It also looked to us as though the system saves labor, so we decided to go ahead with it ourselves."

There are 70 stalls in two rows along one side, hay storage and feeding area in the middle, and silage feeding bunks along the other side. Hay bales are randomly dropped in the hay storage space, rated at a capacity of 220 tons. A 145' auger powered by a 5 h.p. motor distributes silage along a bunk at which cows can feed on only one side. The hay

feeding area, also approached by cows from only one side, is almost as long as the silage bunk.

Silage is fed heavily here; in fact, the Bults fed an all-silage roughage ration at one time, but didn't have enough silo space to continue as the herd grew in size. That space is considerably beefed up by the new 20' x 60' silo alongside the new barn.

Walls and roof of the barn are 28 gauge galvanized steel, louvers in the ends are designed to prevent sweating in winter. A six-stall milking parlor has a 20 ton grain storage overhead; Jim reports some cows are able to stow away as much as 20 pounds of grain apiece while being milked.

There is a curb behind each stall 8" high; the stall floors are a mixture of coarse sand and gravel. Feeding areas and the alley between rows of stalls are entirely paved.

How Important Is Dairy Type?

TYPE classification significantly affects the sale value of dairy cattle. Milk production, however, is so slightly related to type that dairymen frequently ask, "How much emphasis should be placed upon type?" The answer, according to N. D. Bayley, assistant director, animal husbandry division of the Agricultural Research Service, depends on the importance of cattle sales to the income of individual dairymen.

Breeders of purebred cattle recognize that, in the sale ring, type is as important as production — so they strive to improve appearance and conformation. But dairy cattle sales account for only about 50 percent of gross income, even in the most outstanding purebred herds. So breeders should keep production and type improvements in proper relationship, Bayley contends.

Trait Selection

Selection for a single trait (for instance, production) results in the most rapid improvement that can be expected for that trait. When selection is also made for a second trait (such as type) production improvement is slowed.

For the few dairymen who have developed highly productive herds and want to emphasize cattle sales, type can be markedly improved by

allowing one type grade increase as much emphasis as raising production 2,500 pounds in Holsteins, or 2,100 pounds in Jerseys. At the same time, it should be realized that when type is emphasized, production progress is slowed.

For the majority of dairymen wanting only higher milk yields, Bayley believes that type should be largely disregarded. Only 2 to 6 percent of the average dairyman's income is dependent on type variations. USDA researchers have found that, for most dairymen, raising milk production is at least 20 times more important than improving appearance.

Many dairymen rely on artificial insemination organizations for their herd's breeding needs. How much emphasis should these organizations place on type? Bayley recommends that they place no more emphasis on superiority of one type grade than on 1,200 pounds of milk. For example, a cow classed Good should be chosen over one rated Good Plus, providing Good's milk yield is 1,200 pounds more than the other's.

He acknowledges that the AB organizations have an obligation to serve clients who emphasize cattle sales. But he believes they have a greater obligation to serve the more than 95 percent of U.S. dairymen who derive almost all their income from milk sales.

FREE GIFT

100—PIECE
CHRISTMAS
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Including 15 all-in-color, all different

CHRISTMAS CARDS

With envelopes, plus stringed tags and gaily colored seals for your packages. Sent postpaid when you order your own or a gift subscription.

We have been sending similar gifts to subscribers each fall for several years BUT WE'VE NEVER HAD A NICER CHRISTMAS PACKAGE FOR YOU!



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Enclosed is \$—— for a gift subscription for a friend for the term I've checked. Also send the 100-piece Christmas assortment at no extra charge.

☐ 1 Year \$1 ☐ 3 Years \$2.50 ☐ 4 Years \$3

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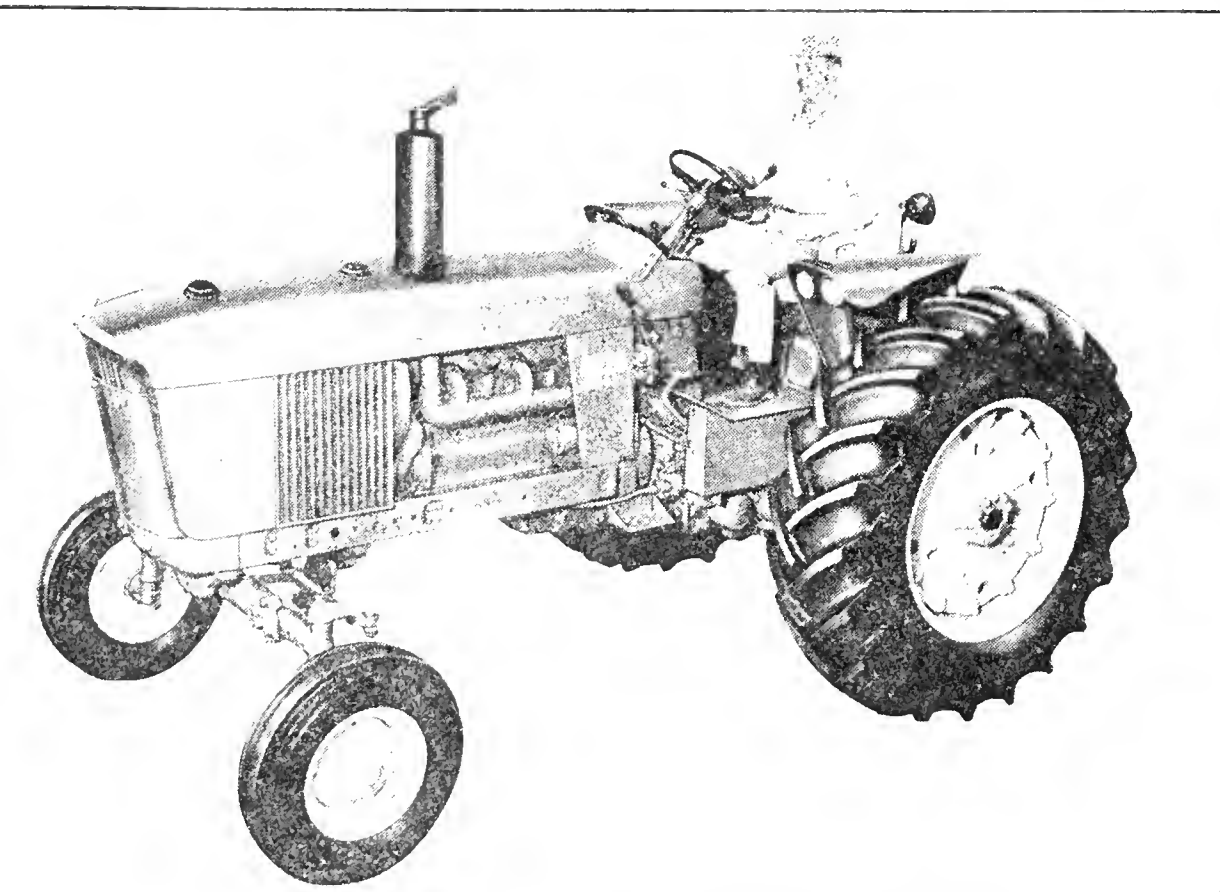
State _____

☐ New ☐ Renewal

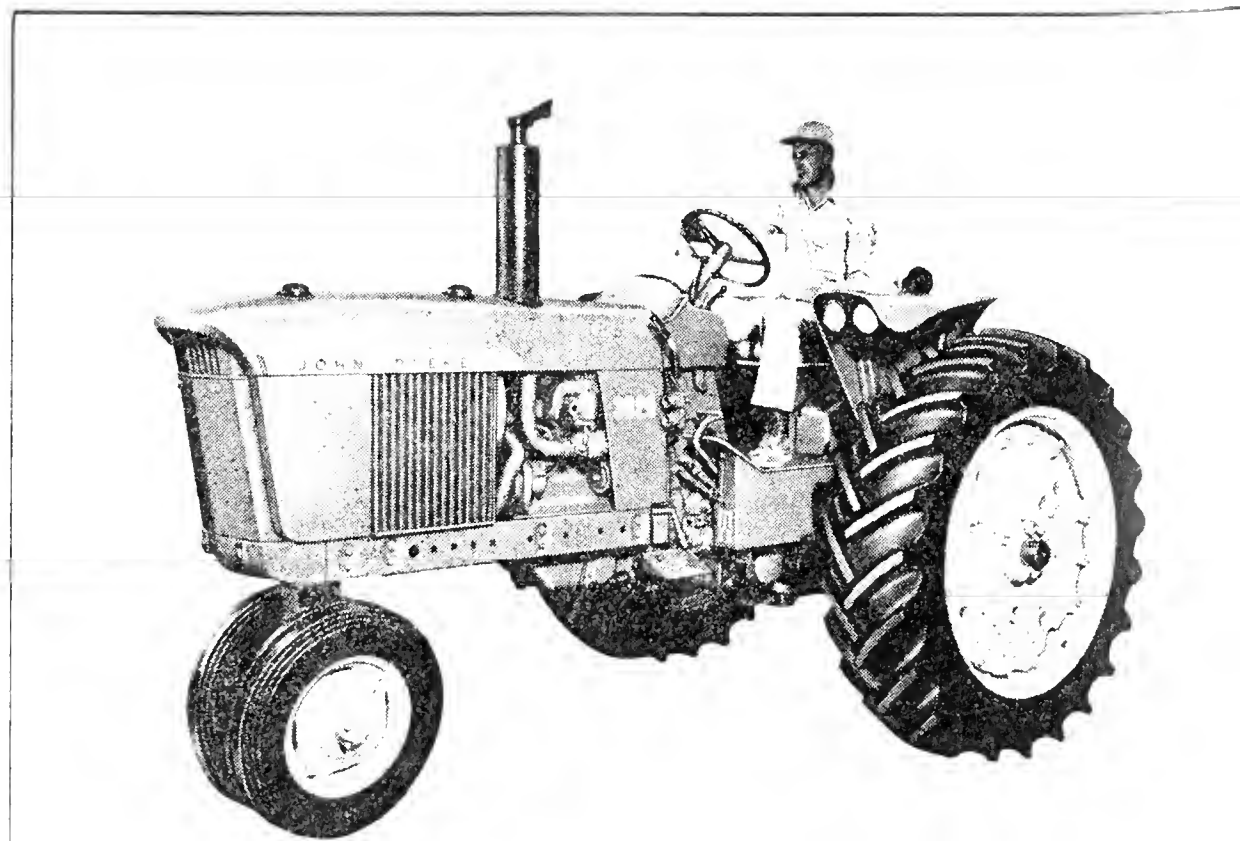
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John Deere standards deliver beefed up power to work implements at peak capacity full-time



Posture seat, power steering, and power brakes are standard equipment

JOHN DEERE INTRODUCES the NEW 3020 and 4020 TRACTORS with Single Lever **Power Shift**

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New John Deere Power Shift puts all gear selections in a single shifting pattern . . . with a single lever. You change gears under full load, shift freely and instantly to any forward or reverse selection without interruption of power to the drive wheels. Do it on the move; do it without touching the clutch. Hydraulic power makes speed selection almost effortless.

Now, you can shift up or down quickly to match soil conditions on tillage operations. You'll upshift to sprint across headlands; drop back to your work gear without hesitation. A nudge of the shifter lever maintains the proper ground speed to keep PTO equipment working at full capacity without clogging. Heavy loads can be started in a power gear and moved smoothly and swiftly up to top transport speeds. On downgrades or at row ends, you can shift back and slow down in a jiffy — and you enjoy the added security of positive holdback action in all gears. John Deere *Single Lever*

Power Shift also provides direction-reverser action, again without clutching.

New John Deere "3020" and "4020" Tractors are available with either new *Single Lever Power Shift* or Syncro-Range Transmission. Both transmissions provide a fine selection of realistic speeds, matched to every job. Both are huskies — capable of taking full advantage of the higher horsepower of the new tractors. Look over and into a new "3020" or "4020" with your John Deere dealer today. Ask about his Credit Plan, too.

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Department A, Moline, Illinois



Choose from the Long Green Line of John Deere Tractors

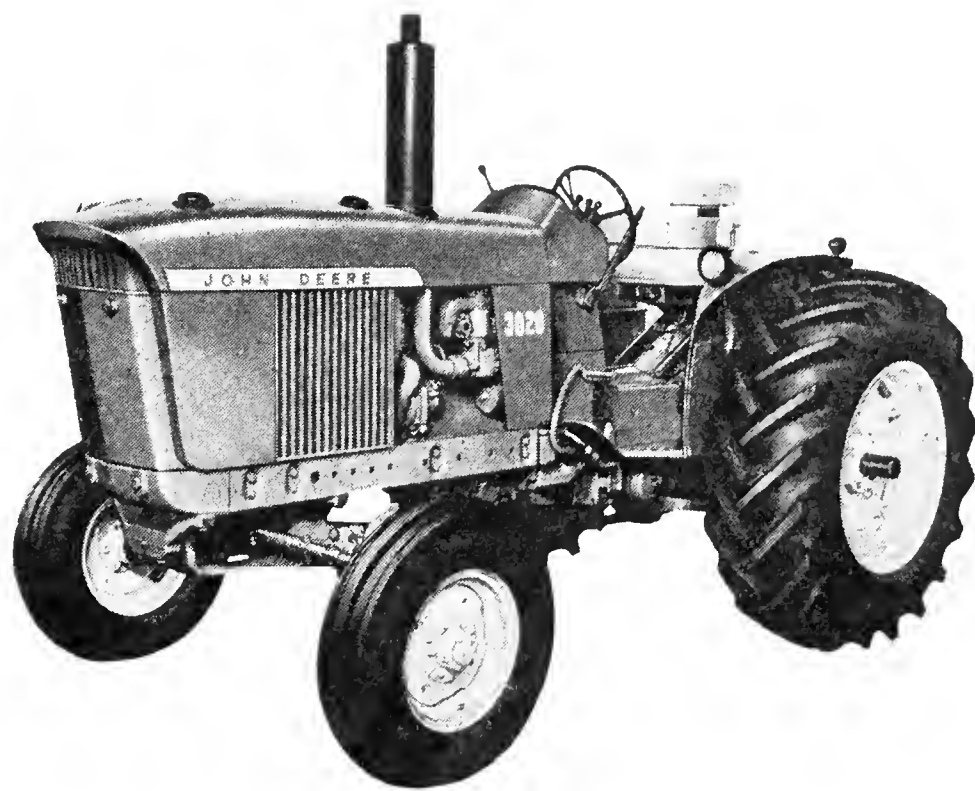
New 3020 and 4020 Tractors deliver
beefed-up power, too . . .

3020 - 64 H.P.

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You'll get full usable value from this substantial horsepower increase because built-in weight of these new tractors has been beefed up, boosting traction . . . because hydraulic pumping capacity has been increased to control the bigger implements you'll use . . . because the PTO power train has been beefed up to deliver power under peak load conditions.

*Factory observed at the PTO; not yet tested at Nebraska



A new "4020" Standard displays its power to run . . . working 21 feet of chisel plow at 5½ mph!



Young Ambassadors

Many a Northeastern rural family has known the joy of enlarging its family circle to include a student from overseas

FRIENDSHIP and increased understanding among their fellow men were the goals set by the American Field Service when it was founded in 1915 as a volunteer ambulance service with the French armies in World War I. Between the end of that war and the beginning of World War II the AFS instituted graduate fellowships for French universities.

After the Second World War ground to a close, the idea of a peacetime program to further the basic friendship among men was revived. In the belief that world friendship can best be accomplished by young people, a new program on the teenage level was begun in 1947. In that year 50 foreign students came to America—the vanguard of last year's 2,560 young folks from

50 foreign countries and 2,000 towns who spent a school year living with American families, many of them rural families in the Northeast.

The students from other countries that are chosen for the American Field Service international scholarships are between 16 and 18 years of age, screened with the help of educators in their own countries for personality, intelligence, and ability to gain enrichment from the experience. They take the senior year of high school in their American communities, and get a working familiarity with many aspects of American life.

As an added bonus, at the end of the school year the American Service Committee, in cooperation with the Greyhound Corporation, organizes three week bus trips so that

the students may see at first hand other areas of the country and special points of interest.

It was not until 1957 that the first small group of American secondary school seniors under the sponsorship of AFS sailed to live with European families and to attend the first semester in local secondary schools. The project proved very successful, as did the same idea for the second semester in the southern hemisphere. Now the AFS school program is active in 19 countries, and in the northern hemisphere has been extended to a full year.

How It Is Done

It takes the contributions of many organizations and many individuals to help keep the AFS program alive and functioning. The State Department offers its facilities for the screening of candidates abroad, and has made grants to cover the expenses of some students and AFS offices abroad. Schools waive non-resident tuition and other fees; family circles are enlarged willingly and without pay to welcome the students; communities form volunteer chapters to look after the students, and pool their resources to raise the participating contribution for each (\$650 per student) which covers approximately 60 percent of the total cost for the average student. Schools have sold 25 cent shares, held benefit basketball games, magazine drives, etc. to raise the \$650, and the general public contributes the additional necessary funds.

After a community has sponsored a foreign student, it may nominate that year qualified candidates from the participating high school for the American Field Service "Americans Abroad" programs. Anyone interested in learning how to be an AFS family may write to the American Field Service, 313 East 43rd Street, New York 17, N. Y.

Charcoal Cooking!

THREE miles east of Stamford Village, New York, a new enterprise is burgeoning — the charcoal manufacturing plant of the Timberland Products Company, Inc.

The company began operations in March of 1962, and in November of that year began to install a huge wood carbonizer — one of very few in the nation—capable of producing 48 tons of charcoal briquets per day.

The first briquets were rolling off July 1, and each day since the great carbonizer has transformed from 150 to 180 tons of hardwood, in the form of chips, into briquets. The wood is purchased by weight from area farmers, saw mills, veneer manufacturers, and others within a radius of 50 miles of the plant—a good outlet for farm waste wood.

A chipper powered by a 200 horsepower electric motor has been installed, which can in twenty seconds eat up logs as large as 16 inches in diameter and from 8 to 10 feet in length. The chips are blown into huge piles, then transported by automatic loaders to the carbonizing plant.

Donald Warner, Stamford, vice president and general sales manager of the firm, expects a production of two tons per hour for the briquet plant, and a potential sale that will keep the plant—and its 40 to 50 workers — busy around the clock.

LAND BANK AND PRODUCTION CREDIT LOANS THROUGH 70 OFFICES

NEW ENGLAND

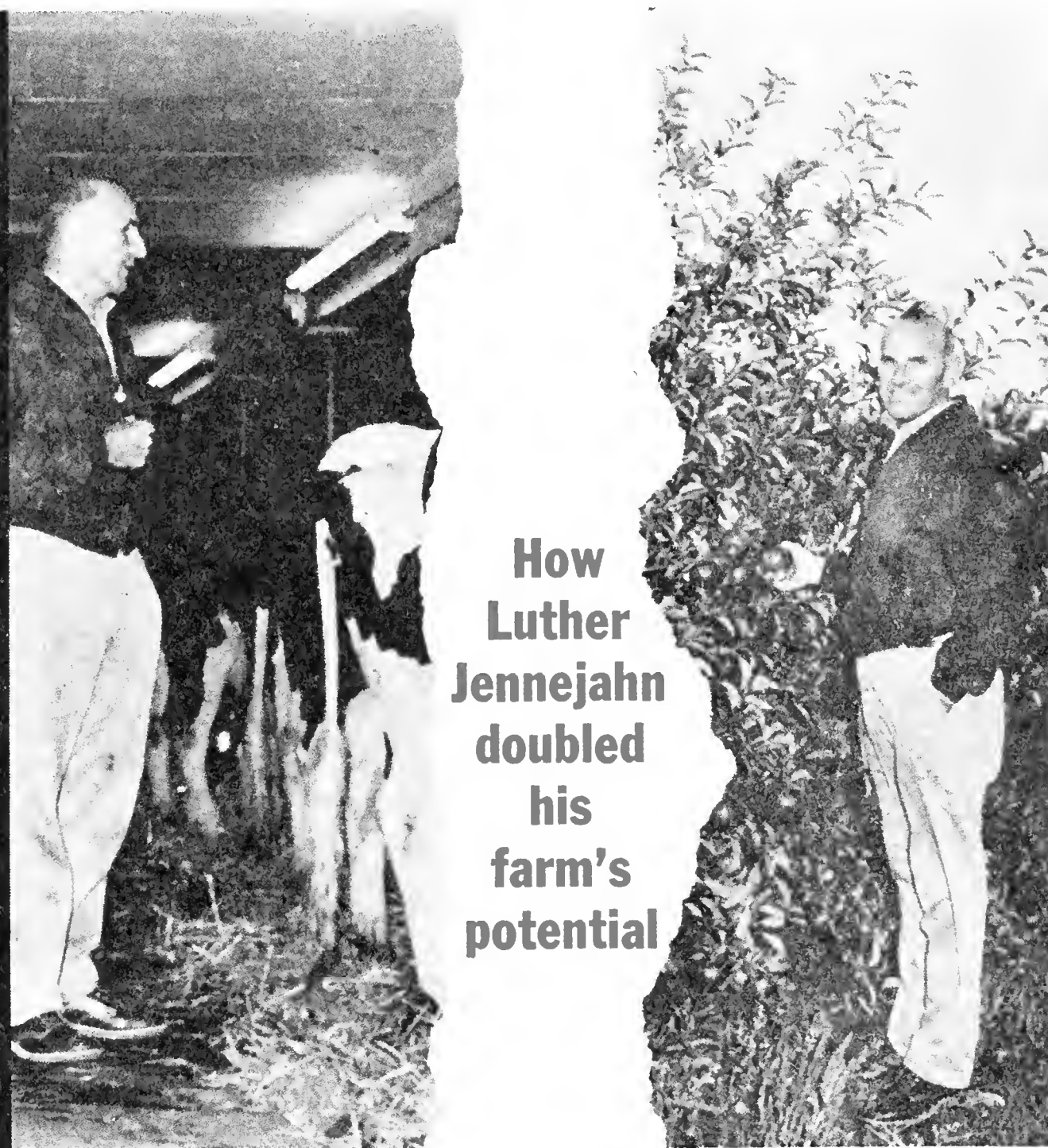
Auburn, Me.
Caribou, Me.
Ft. Fairfield, Me.
Gorham, Me.
Houlton, Me.
Madawaska, Me.
Newport, Me.
Presque Isle, Me.
Nashua, N.H.
Burlington, Vt.
Middlebury, Vt.
Montpelier, Vt.
Newport, Vt.
Rutland, Vt.
St. Albans, Vt.
St. Johnsbury, Vt.
White River Jct., Vt.
Rutland, Mass.
So. Deerfield, Mass.
Taunton, Mass.
Greenville, R.I.
Hartford, Conn.
Litchfield, Conn.
No. Windham, Conn.

NEW YORK

Albany
Albion
Auburn
Batavia
Bath
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Canton
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Fultonville
Herkimer
Horseheads
Hudson
Ithaca
Kingston
Lafayette
Liberty
Lockport
Lowville
Malone
Mayville
Mexico
Middletown
Mt. Morris
Morrisville
New Hartford
Norwich
Olean
Oneida
Oneonta
Owego
Penn Yan
Pleasant Valley
Riverhead
Rochester
Sodus
Warsaw
Watertown

NEW JERSEY

Bridgeton
Flemington
Freehold
Moorestown
Newton



How Luther Jennejahn doubled his farm's potential

Luther Jennejahn netted only \$80 cash from his shares operation in 1937 and had to have \$3400 just to continue. Nowhere else to turn, he called on his local Farm Credit manager.

"He looked over my herd and operation," Luther remembers, "and said immediately there was no reason why I couldn't qualify for a loan." Today, Luther successfully operates 150 acres of apple orchard along with a 60-Holstein herd and 90 acres of crop land in Hilton, New York.

Although fruit and dairy are considered conflicting operations, Luther thinks he's

doubled the farm's potential with fruit. "And at my age it's just the right balance of work," he tells Bud Auger, local Co-Op Farm Credit manager.

Things haven't always been that easy. His wife was stricken with polio in 1945, the year he'd decided to buy the farm outright. "But the Federal Land Bank came in real strong," he says. "They furnished half the purchase price and the Production Credit Association the balance."

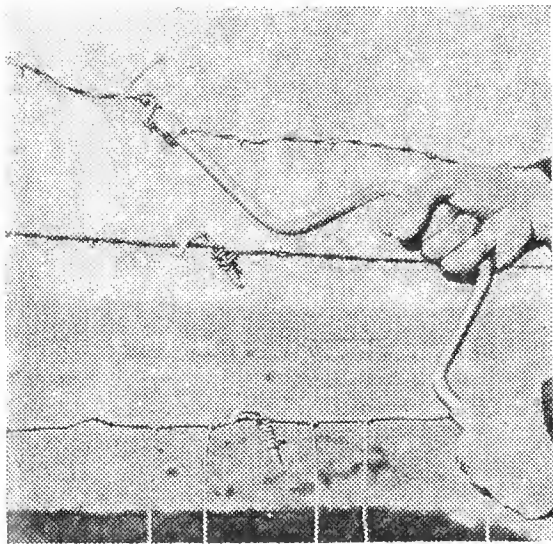
"We learned from experience about Cooperative Farm Credit," Luther Jennejahn says, "you go to them and talk farm problems and they understand."



THE
SIGN
OF
DEPENDABLE
CREDIT

FEDERAL
LAND BANK
AND
PRODUCTION
CREDIT
LOANS

It's New



Tightens Fences (see below)

Fence Wrench — Wire fences can be tightened in minutes with this Benbow Fence Wrench, manufactured by W. G. Thorn Co., 120 King Street, San Francisco, California. It is for installing new barbed wire, tightening wire after stapling, splicing, for tightening trellis wires for grapes, etc. One wrench will last for years; the tighteners come in boxes of 10 and 25 pounds.

"Crown" That Cow — With some beef cow men holding breeding stock since 1957, the number of cows with worn teeth is high in U. S. herds. If you have an old cow that is too good to cull, consider crowns for her teeth. An Angus cow in the Noble Foundation herd at Ardmore, Oklahoma, had teeth so sensitive that she neither ate nor drank enough to maintain body weight. It is believed that adding crowns to her teeth will add five years to her useful life. Approximate cost, \$25.

Humane — A new Winchester cartridge known as "Num-Rite" has been designed by Olin Mathieson Chemical Corporation for use by packing plants, humane associations, law enforcement agencies, veterinarians, farmers and ranchers. The cartridge stuns the animal instantly, but because it disintegrates the instant it hits a solid surface it is harmless to workers, and there is little spatterback. It is non-toxic, and the meat is not contaminated.

Tile-It — This is a new epoxy film coating for walls, ceilings, stall showers, locker areas, etc., whether of cinder block, wood, marble, metal or many other materials. Sold by the MacDougall-Butler Co., of Buffalo, N. Y., it was chosen for the 23 foot wide, mile-long ceiling of the Sumner Tunnel, which runs beneath Boston harbor. Tile-It is available in six standard colors as well as in black and white.

Pure Water — The problem of a supply of pure water on farms selling produce for the market may be solved by a new electric water pasteurizer now being field-tested in Kentucky. The unit provides 500 gallons per day, adequate water for the average home, and the electric power consumption averages 40 to 50 kwh per 1,000 gallons of water.

Wooden Concrete — Professor Alex Dickson, Extension forester at the New York State College of Agriculture, reports that wooden concrete and paper potholders are in the offing.

Waste wood is replacing sand in a new lightweight concrete—a mixture

of cement, diatomite, and wood shavings. The substitution of wood for sand reduces the weight by about two-thirds.

Handbags and accessories made of wet-strength twisted paper coated with vynal plastic are a likely possibility, potholders made of paper, chemically-treated paper space suits—and vests that will fold to pocket size. Other possibilities for paper include auto and furniture upholstery, sails that will cost only half as much as canvas, snow fences—and, of course, paper hats and dresses for the ladies.

New Corn Head — A new two-row forage harvester corn head, called the Pick-Chop, has been developed by Gehl Bros. Manufacturing Company, West Bend, Wisconsin. The

new attachment picks only the ears from one row while on the other it gathers in the entire stalk and ears. In one operation, corn is picked, silage is chopped, and the two are blended ready for storing and feeding.

The head is designed to increase the amount of grain in corn silage as it is being chopped, eliminating need for adding more shelled corn to the rations. Also, the attachment can be used as a regular one-row forage harvester.

Gun Staplers and Air Guns — That's what fruit growers are using to tighten the bark to the wood on winter-injured trees. The air guns are operated from a compressor used for pneumatic pruners, says Professor William J. Lord of the

University of Massachusetts, and one grower is using one inch crown staples of 21/32 inch length in the air gun. The same grower welded a handle on a mowing machine cutter bar section (serrated) to use for scraping off old shedding bark prior to stapling.

Instant Milk Pasteurization — A Cornell University dairy scientist, William K. Jordan, is studying a new instant milk pasteurization method that produces better-flavored milk. The method requires the injection of steam, which pasteurizes instantaneously, with instant cooling by evaporation. The process, Jordan says, gives more complete destruction of bacteria so that milk stays sweet for a longer time, and has better flavor.



Shown Actual Size

1/2" PROF-ETS

The 1/2" dairy pellet containing whole crimped grains and beet pulp

BEACON PROF-ETS . . . constitutes a brand new nutrition-packed 16% milking ration available now for your cows. In a significant nutritional advance Beacon now offers this new feed . . . including crimped whole grains and beet pulp . . . in a 1/2" pellet.

This, we sincerely believe, is the grain form of choice for now and the future.

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- The 1/2" pellet size permits use of whole crimped grains and beet pulp, not just ingredients available only in fine particle size.
- When Beacon Prof-Ets break down in the rumen, particle size is similar to a mash type feed assuring normal digestive tract action.
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- Cows relish Beacon Prof-Ets . . . get more of the nutrition packed into each pound.
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Suppose farmers will someday fit their fields by remote control like this?

year period ahead, you will probably want to give some thought to whether you'll want four-wheel drive on your next tractor.

New Refinement

The supercharger is an engine refinement that you may wonder about, and there may very well be more use of them in the future as engines are made more powerful. There's no magic involved, and you shouldn't worry over whether your new tractor has one or not. When an engine is equipped with a supercharger, a fan forces air through the carburetor and into the cylinder under pressure. Thus, the cylinder gets a bigger charge of air and fuel, and so more power is produced when the charge fires.

There have been many developments in tillage in recent years. Some are changes in practice, such as various forms of minimum tillage, involving such ideas as hooking implements together to save trips over the field and thus reduce costs. In addition, there are cases where some operations are eliminated, and the amount of tillage performed is actually reduced.

Refinements in machines are continuing. The semi-mounted steerable plows are an example of refinement. It is possible to get a degree of maneuverability in plows of large size by using this approach that can't be attained in any other way, thus combining the good features of both trailing and mounted plows.

Rotary Tiller

A relatively new approach to tillage is the rotary tiller, which uses a powered rotor with knives to till the soil. Studies indicate that ultimately the rotary approach to tillage may be more efficient than a moldboard plow when measured in terms of total work accomplished per horsepower used.

Those who use the rotary tillers now on the market report fewer problems of compaction, better intake of water, better aeration, reduced erosion problems, and thorough mixing of trash material through the complete depth of the soil tilled. This also reduces the problem of the plow sole, a compacted layer of soil just below where the moldboard has run. What will become of rotary tillage in this country remains to be seen, but the number of these machines has grown considerably in recent years.

One interesting aspect of this development is that the rotor actually tends to be self-propelling. Studies show that a tractor which powers one of these pto-operated machines is actually almost "pushed" by the action of the rotor. This tends to reduce the compacting action of the tractor drive wheels, and it also opens up interesting possibilities of a self-propelled tillage machine which doesn't need drive wheels. Whether we will ever see such a machine is problematical, but it appears to be something which could be over the horizon.

Big Tires

Still another refinement which may help solve some problems created by bigger and bigger tractors is the big, very-low-pressure tire. Compaction has an unfavorable effect on many soils, although it is

(Continued on Opposite Page)

What's Ahead In Equipment?

By TOM CLAGUE

AGRICULTURE passed something of a milestone last year, the centennial of the United States Department of Agriculture, and as we move into the second century of treating agriculture as a business, things are changing at a dizzying pace.

American agriculture has been called the production marvel of the world—and with good reason. The application of power through mechanization has made it possible for every farm worker to furnish food and fiber for at least 25 others. And each year our production per man-hour goes up, because of more power which is controlled by one man, because of bigger yields due to improved cultural practices, and because of generally better management.

Economic Necessity

Most of the changes which increase our productivity are prompted by economic necessity, as perhaps they have always been. In recent years it has taken more and more volume to provide enough profit to survive—costs are going up, profit margins going down—something that is happening in industry as well as in agriculture.

As we have moved farther into the age of mechanization, it has become increasingly profitable to replace labor with capital, because of the relatively short supply of economically-priced, satisfactory labor. Also, in comparison to labor costs, the cost of capital—or the "rental cost" of using money—has been going down, due to the relatively plentiful supply of capital available.

The development of the mechanization of agriculture has been a gradually growing thing, just like any other development. When man first pressed beasts of burden into his service it was quite a radical departure from doing it all by manpower—stoop labor, elbow grease, etc.

The transition from using only one animal on a task to using two, four, or a dozen or more, was just a refinement of the basic idea. Before the tractor came in, there were

jobs that required many horses, an early example of increasing the power available to one man—the operator of the machine.

Continual Process

The process of refining and developing is still going on in farm equipment—power units, tillage machines and practices, harvesting equipment, etc. Most of the frontiers of mechanization in these fields are long since past. **Just now we are really getting into the frontier of the last great area of mechanization—farmstead mechanization.**

Although it's not exactly news, tractors are still getting bigger. A few years ago 100-horsepower wheel tractors were just not available. Now they are, and more will be used—because they expand a man's capacity to do work.

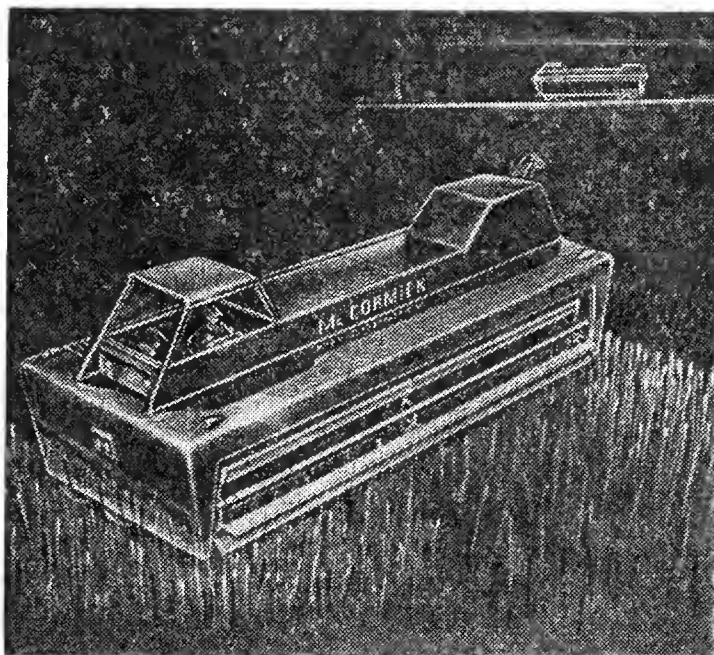
It's an over-simplification to say that these tractors are more expensive than tractors used to be. Evaluating should really be done in terms of the **cost per unit of work done**. When today's powerful tractors are priced in terms of cost per horsepower, or ability to do work, they are an excellent value as compared to pre-war tractors.

For example, one man can plow almost 2½ times as much today as he could with a pre-war model tractor. His equipment cost is only two-thirds of what it would have cost for pre-war machines to do the same

amount of work in terms of pre-war dollars. And in addition to reducing his real cost for equipment per unit of land farmed, by using larger equipment he has also eliminated the need for 1½ extra men. However, it takes more acres to justify the use of the larger, cost-cutting machines.

There's another reason why it's difficult to compare today's tractors with older models. They are now equipped with conveniences that were not even thought of twenty years ago—power steering, transmission options, complex hydraulic systems, suspension seats—to name but a few. These things help to increase the productivity of the operator by making higher-speed operation more feasible.

A growing development is four-wheel drive for tractors. This is being done a great deal by farmers who hook two tractors together, and it is also offered on the market in two types—the 100-horsepower range of conventional wheel tractors, and the 200-horsepower range of "giant" tractors, with all four wheels the same size. In addition to increasing the working capacity of an operator, four-wheel drive apparently improves the efficiency of traction so that a powerplant can do more work in a four-wheel drive tractor than in a two-wheel drive unit. As you consider your operation for the ten-



Engineers are thinking even now about "far out" combines such as shown in this sketch.

WHAT'S AHEAD IN EQUIPMENT?

(Continued from Opposite Page)

something not easy to evaluate in many circumstances. Studies are being made with tires that are perhaps two feet wide and operate at a pressure of as little as one pound per square inch. Who knows how many of our tractors will one day roll on such giant tires in order that we may stop excessive compaction of our soil?

There is a tillage aspect to the ideal use of granular chemicals, which are favored by many because of convenience of use. Manufacturers of chemicals recommend immediate incorporation of soil insecticides to eliminate waste of the chemical into the atmosphere. This has promoted the development of a precision applicator mounted on a wheel-type disk harrow or field cultivator, in order that the chemical may be incorporated as soon as applied. The job is done without any extra operations—thus, a new technology has prompted a new look for some of our old operations.

The same holds true also for the use of herbicides in chemical weed control for row crops. Ideally, weed control chemicals should be incorporated into the soil at a very shallow level, protecting particles from being moved by the wind—and leaving “open” spots for weeds. It also makes it possible for soil moisture to improve the chemical's effectiveness.

A special wheel is now available for planters, which compacts a band slightly, yet fluffs up the surface of the soil for incorporating granules. Thus, the traditional planter press wheel may well be displaced by a

wheel which actually is more of a tillage implement in nature, for the effective use of weed control chemicals in row crops.

Harvesting machines have been growing in size, and refinements have made for easier handling—self-leveling, power steering, etc. have made for increased working capacity per man-hour. But a completely new approach to threshing is being studied which may simplify the machinery used for harvesting grain. It involves the use of centrifugal force instead of the traditional rubbing for threshing followed by air-blast separation on racks. It appears to offer the possibility of reducing the size of the harvesting machine a great deal. Such a ma-

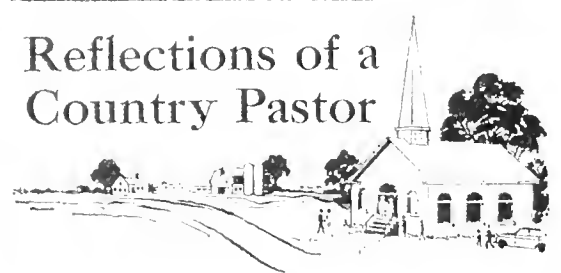
chine would probably harvest, without kernel damage, grain with much higher moisture than present combines, and it could work efficiently on sloping ground.

The last frontier needs mechanization badly. In the last 45 years the productivity per man-hour has increased 638 percent for feed grains—but only about 100 percent for livestock production. Mechanization of feeding and caring for animals is the only thing that can improve this figure.

We are just beginning to see developments here, and refinements are appearing. It has been discovered that the machine which eliminated hand-feeding can now be equipped with controls so that it feeds

many times a day, and in limited quantities. Further, these two feeding techniques have increased feed conversion by almost 10 percent in some studies, which could greatly improve profit in a feeding operation. More and more in the future the operator in a livestock operation will be a manager instead of a laborer. Systems will handle all materials involved in the program, and in the next 45 years the lag in farmstead mechanization will probably be erased.

While 1963 may not look much different from 1962, don't be fooled. If we look at 1920, 1940, and 1960, we see some striking changes; and we are still in the midst of changes throughout agriculture.



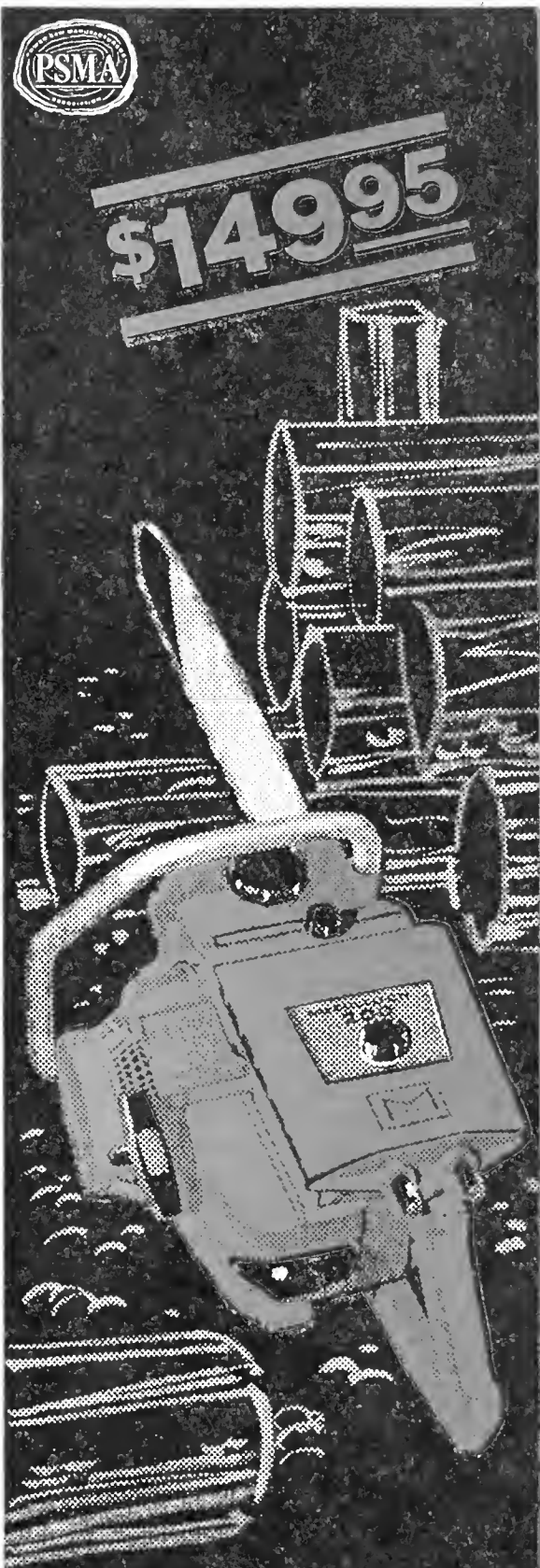
Reflections of a Country Pastor

A Cure for Nerves

IN MY YOUTH I was privileged to know an elderly grandmother who brought up eight motherless children. At times things became rather noisy and pretty hectic in that home. When they did, she quietly left the hubbub, went into her room, and closed the door. The youngsters knew they were not to enter or even knock. One of the girls asked why she did this; the rested eyes and softened mouth said, “I feel the Presence.”

When things turned topsy-turvy, she was the calmest, quickest-thinking one on hand. She took time out twice or more times daily; in this way she drew calmness and strength from God. She exposed herself to the healing and helping ministry of His spirit. And she lived to be 87.

People with hard, exacting jobs have done as Jesus did. They get up a great while before day to gather from the source of all strength the strength of spirit for their day. Anger, or bitter feelings that turn the functions of the system into burning distress, can be alleviated by spiritual therapy. The relaxing Presence of Him who cheers us up, and the power of Him who lifts us up from dismay or despair to sufficiency for the day, is yours! You can secure it if you will.—Arthur Moody



McCulloch's new 200

has a compact 4.9 cu. in. engine that delivers fast direct drive cutting for limbing, pruning, cutting firewood. Its balanced design means it is easier to use and handle at any angle. Fingertip controls for maximum safety and convenience, automatic rewind starter and four-shoe safety clutch. Large air cleaner and fuel filtering system mean top performance and added engine life. Complete with full 17" laminated guide bar and McCulloch's all-new Super-Mac Chain for faster, smoother cutting. There are four new McCulloch direct-drives priced under \$200.

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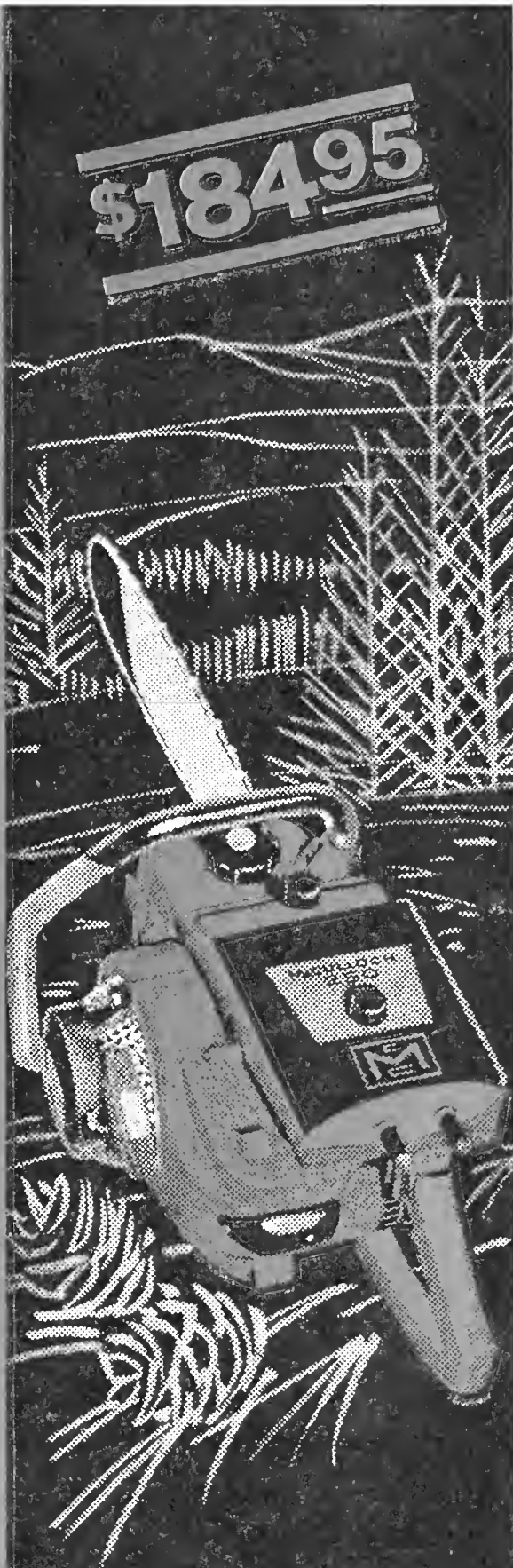
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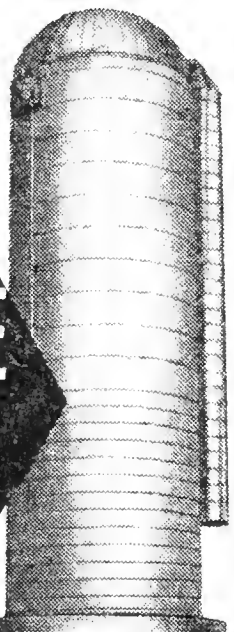
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Fables About Agriculture

By G. E. Brandow*

IMAGINE for a moment that no progress had been made in farming beyond the methods used 40 years ago. In order to feed our much larger population, more land (some of it very poor) would be under the plow. Many more people would work on farms than are now employed



GEORGE BRANDOW

there: food prices would be high. A large part of the nation's resources would be tied up in agriculture, materially reducing the country's industrial output. Farming's contribution to the well-being of the American people would be much less than

it actually is.

But almost surely agriculture in such a situation would be regarded as more important and as a greater contributor to the public welfare than it is today. The city man would be impressed by the large share of the population living on farms. The high cost of food would emphasize the importance of food; farmers would be regarded as especially productive. There would be no persistent farm surpluses and no costly farm programs — agriculture would be "healthy."

But when only eight percent of the nation's population lives on farms, as is the case today, the city dweller loses direct contact with farming. His notions about it become a mixed bag of facts, distortions, and outright myths or fables. A leading fable is that the contribution of agriculture to the nation's welfare is measured by the number of farmers. Let us look at some others:

1. Agriculture is a sick industry — "Sick" might logically be applied to an industry having a falling demand for its products and faced by further decline or eventual extinction. But the market for farm products is growing with the population. Farming is so technologically progressive that farm incomes are under pressure and fewer people are needed on farms. But "sick" is hardly the word to describe the present situation.

2. Agriculture in the Northeast is dying — Figures from U. S. Department of Agriculture show that farm production in the Northeast in 1961 was 14 percent above the 1947-51 average (dates selected to avoid effects of weather). Farm production rose 24 percent in the country as a whole in the same period.

The higher output was achieved with 16 percent less cropland (comparing 1961 to 1947-51) in the Northeast and 10 percent less in the United States. The difference between the Northeast and the United States is mostly a matter of degree; in both, production is rising even though less land and labor are being used.

This is possible partly because

more machinery and supplies are being purchased. Between the Census years 1949 and 1959, for example, northeastern farmers increased the number of farm tractors in use by 29 percent and applied 28 percent more fertilizer. Despite their declining numbers, farmers are becoming a larger market for such items.

Within the eleven-state northeastern region, urban expansion — or abandonment of poor land — has reduced farm output in some local areas. In others, farm production has risen more than previously quoted figures indicate.

The striking change on the farm scene, however, has been the disappearance of many small, uneconomic units. Between the 1949 and 1959 Census enumerations, the number of farms selling \$5,000 or more of farm products increased two percent though prices declined. Such farms sold 90 percent of all farm products in the Northeast in 1959.

3. We have great over-capacity in agriculture — Government programs have held some farmland out of production, have diverted certain products into storage, and have disposed of others noncommercially, as under Food for Peace. If these programs had not existed in 1961, about seven percent of farm production would not have found a market at existing domestic and export prices. This is a rough measure of over-capacity in agriculture. In contrast, from 15 to 24 percent of plant capacity in manufacturing was not in use during the

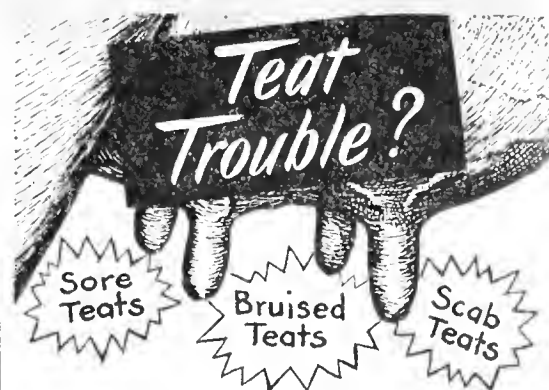
years 1957-61. Excess capacity is almost always greater in manufacturing than in farming.

An important difference between the two is, in the absence of government programs farmers produce close to capacity without control over price, while manufacturers more nearly gear production to sales at administered prices. Under the competitive circumstances characterizing agriculture, production is regulated mainly by changing the capacity to produce — a cumbersome process. Manufacturing typically holds some excess capacity idle, thus more readily adjusting production to market outlets at comparatively stable prices.

Farm surpluses and price difficulties give a false impression of the amount of over-capacity in agriculture. Our future food supply cannot be taken for granted. Present farm capacity to produce food will need to be increased by about one-fourth by 1980, largely by further technological progress.

4. Factories-in-the-field are swallowing up family farms — Statistics for American agriculture as a whole do not support this belief. In 1959 farms hiring less than 1½ man-years of labor included 96 percent of all farms, and they marketed 70 percent of all farm products. In 1944, they had been 95 percent of all farms and had marketed 67 percent of all farm products. Larger farms have gained in production of cotton, fruits, and vegetables but not in total agricul-

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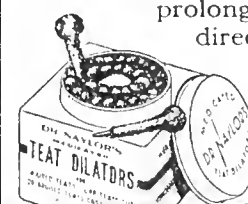


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FABLES ABOUT AGRICULTURE

(Continued from Opposite Page)

ture—and not in the Northeast.

The great change has been the shift to large, well-equipped family farms. Between 1949 and 1959, the number of farms in the U. S. with sales of more than \$10,000 — but hiring less than 1½ man-years of labor—increased 95 percent. In contrast, the number of farms with sales exceeding \$10,000 and hiring more than 1½ man-years of labor decreased four percent.

Consolidation of farms has eliminated many unprofitable units not capable of providing a decent income for the farm family even at favorable prices. But the farms that remain are still so numerous and uncoordinated that agriculture's ability to deal with price problems resulting from excess capacity has not improved very much.

5. Farm programs have done much harm and no good — Curiously, the major effects of farm programs have been neither the glowing claims made for them when initiated nor the specific defects so often pointed out by their critics. Agriculture is in the midst of technological revolution causing production to outrun demand. Large and time-consuming adjustments are required — reduction of the farm labor force, retirement of some cropland, and enlargement of farms.

A flood of technology shifts income from farmers to consumer until such adjustments have had time to work themselves out. Essentially, farm programs have shifted some income back to farmers while adjustments have occurred. This is less than proponents of programs usually have wanted, but it is no small accomplishment.

The most damning economic criticism that could be made of farm programs would be that they had blocked the major adjustments required for efficient use of national resources. But between 1949 and 1962 crop yields rose 38 percent, output per farm almost doubled, and output per hour of farm labor increased 123 percent (three times as much as in nonagricultural industries). The notion that past farm programs have made agriculture inefficient is a myth among myths.

This has been a look at the forest. When one looks at the trees, he sees many respects in which farm programs can be severely criticized — a book would be needed to discuss them. But there also have been useful by-products. For example, farm programs pushed us into school lunches, distribution of food to the needy, and the Food for Peace program. Probably the nation would wish to continue these in some form even if we had no "farm problem."

Portions of the government's stocks of farm products are useful as reserves for emergencies. Part of the cost of such operations might well be charged to programs other than farm programs.

6. High farm prices and farm program costs make food expensive — Let's look at the record, starting with 1950 when farm prices were well below their post-war peak.

Of the average dollar spent by consumers for a representative market basket of food in 1950, 47¢ went to the farmer and 53¢ went for processing and distribution. By 1962, this same market basket of food cost the consumer \$1.16; 45¢ went to the farmer and 71¢ went for processing and distribution. Thus food prices in retail stores rose 16 percent although farm prices of food actually

declined. Moreover, while retail food prices were rising 16 percent, other items in the urban cost of living were rising considerably more — 23 percent.

Over the same period, consumers' per capita income, after personal taxes, rose 50 percent. Food costs, including meals in restaurants, fell from 23 percent of income in 1950 to 19 percent in 1962.

The nation's food expenditures in 1962 were 72.6 billion dollars. The Bureau of the Budget charged 4.9 billion dollars against "stabilization of farm income and Food for Peace" (average for 1962 and 1963 fiscal years). If this cost had been included in food prices in 1962, retail foods would have been 24 percent higher than in 1950. Even so, they would have risen slightly less since 1950 than nonfood items in the cost of living (23 percent).

7 Farmers are poisoning the population with all sorts of chemicals — The Life Sciences Panel of The President's Science Advisory Committee has issued an objective report that supports neither the extreme alarms nor sweeping denials in the controversy over pesticides. Some of the modern compounds are indeed extremely toxic, persistent, and widely dispersed — found in fish far out at sea, for example. According to the Panel, the main needs are more information about long-run effects of pesticides and careful safeguards against improper or excessive use. The Panel also concluded:

"The use of pesticides . . . is carefully controlled by growers and supervised by agricultural specialists and the Food and Drug Administration . . . residue levels measured on foods intended for interstate and foreign commerce are low and rarely above federal tolerance limits. The Panel believes that the use of pesticides must be continued if we are to maintain the advantages now resulting from the work of informed food producers and those responsible for control of disease."

Effective pesticides are essential for an abundant food supply at moderate prices. Caution, not wild alarm, should be the rule. Moreover, there can be little doubt that, on balance, the wholesomeness of foods purchased by consumers has been increasing with the years.

Dates to Remember

Nov. 12-13—Annual meeting Connecticut Farm Bureau.

Nov. 12-13 — Annual meeting New Hampshire Farm Bureau, Concord.

Nov. 12-14—N.Y. State Insecticide & Fungicide Conference, Ithaca.

Nov. 14 — Annual meeting Rhode Island Farm Bureau, Providence.

November 15-23 — Royal Agricultural Winter Fair, Toronto, Canada.

November 16 — Annual Stockholders' Meeting of Pro-Fac, High School, Batavia, New York.

November 18-21 — Annual National Agricultural Outlook Conference, Washington, D. C.

November 19-20 — New Jersey Farm Bureau annual convention at Beacon Manor Hotel, Pt. Pleasant.

December 1-5 — Annual Conference of the National Milk Producers Federation, Miami, Florida

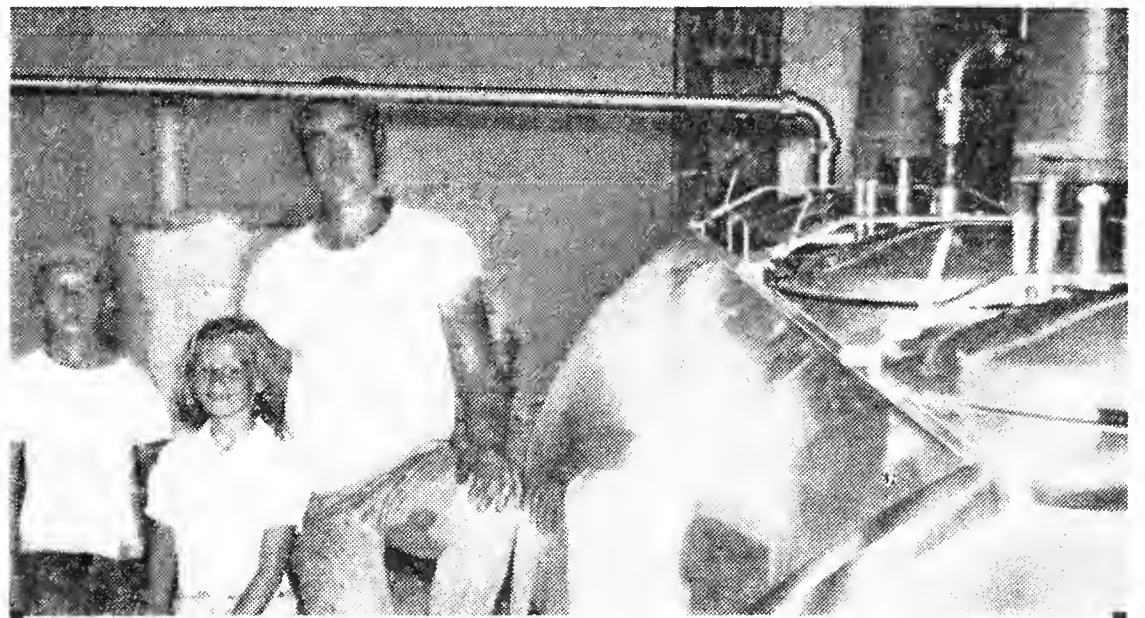
Dec. 3 — N.Y. State Council of Farmer Cooperatives, Syracuse.

Dec. 3-5 — New Jersey State Grange Annual Meeting, Atlantic City.

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"The biggest problem facing dairymen", says Page, "is keeping costs down and quality up. My Mojonnier Bulk Cooler sure does both. Gives me a sealed vacuum system from cow to pickup that guards the freshness and flavor of my milk all the way. The smaller electric bills showed me this Cooler's plenty thrifty, too. Another thing, the way Spray-O-Matic cleans my unit automatically is something to see. Does it in less time and far better than hand brushing ever could. I bought Mojonnier because I wanted the benefit of their years of experience in building quality milk handling equipment for dairies and the farm. Glad I did, because I really picked a winner!"

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Telling Agriculture's Story

(Continued from Page 9)

phasis changes. In dealing with consumers it would seem the better part of wisdom to concentrate on selling first the value of the agricultural products. Concentration on convincing consumers that they need and want milk and milk products ought to be the best way for dairy farmers to maintain their already strong franchise with consumers.

Just what messages should be directed to what audiences if we are really interested in maintaining and improving the good public image of agriculture?

Studies of public attitudes toward agriculture have rather consistently indicated that most people not only think farm people are mighty fine folks, but also show that most city people think farmers work very, very hard. In fact, one study showed non-farm people estimating longer work hours for farmers than farm-

ers themselves estimated! Actually, farmers have paid far more attention to, and reacted much more to the unfavorable editorials and stories than have non-farm people!

Why should anyone outside of agriculture care whether agriculture is healthy and survives in its present form in this country?

The answer may not be as obvious as we think it is. Most people simply don't have time to be interested in agriculture as such, but as consumers they do, of course, have very intense interest in the products of agriculture. It is in terms of what agriculture contributes to our society that agriculture's value in the society must be determined.

We must look at things realistically. There are many people who would argue that agriculture, as a part of the total economy, is no more important than other basic industries such as steel, oil, chem-

icals, electric power, etc. Agriculture's value, they would argue, depends upon what agriculture contributes to the total health, welfare, and pleasure of the people who are asked to buy the products of agriculture. This is not to deny that man must have food to live — whereas steel or oil are not essential to life itself—but most people are unwilling to face the idea in this land of abundance that there could be such a decline in agriculture as to make food scarce. People aren't going to be frightened by such a spectre into worrying about agriculture's present or future.

Thinking now strictly in terms of the city or suburban-dwelling homemaker and what her interests might be in agriculture, generally speaking she is not likely to give much thought to it as a segment of our economy. She is also unlikely to be concerned about price support programs because she has too many much more personal problems which concern her and take up her "worrying time." As an industry,

agriculture is no more important to her daily routine than is the automobile industry, or any other industry from which she and her family buy products and services.

If asked, she might very well tell you that she thinks the price of food is too high. But you will likely find that she thinks the price of **everything** is too high. Just mention to her, for example, appliance repair service — and she'll be off and running with a real tirade against high prices and poor quality.

What Can Be Done?

Let's suppose for a moment, however, that it does appear that milk consumption may be held down because a significant proportion of our people do believe the price of milk is too high. What can we do about the situation? Will it help to tell people that food — in this case more specifically milk — "is a bargain"—or that it takes only so many minutes of labor per day to buy the milk supply now as compared with some other year—or that the Russians wish they had more milk at any price?

These are all interesting points, but the homemaker who thinks her milk bill is too high is not very likely to be influenced very much by any of them. What might lead her to change her mind is a better understanding of the product itself and what she is actually buying in a quart of milk. If a person thinks the price of milk is too high in comparison with other foods and beverages available, then this person simply does not realize—or does not remember — what milk contributes to the family diet in terms of nutrition and pleasant eating.

In dealing with consumers of farm products, good or bad public relations will be determined primarily by what the consumer thinks of the product she is buying. Additional factors enter in, of course, such as what the consumer thinks about the company whose brand name is on the product, or the store in which she buys it. Basically, however, it doesn't seem reasonable to expect the consumer to get involved in economic and social theories and conflicts when she looks at food products. It is far better to help her to keep her thinking clear by urging her to make buying decisions in terms of what the products mean to her and her family.

Two-Way Understanding

People in agriculture complain often that non-farm groups do not understand agriculture's problems; the question logically could be asked, to what extent do farm people make an effort to understand the problems of the non-farm group? We have all attended meetings at which speakers have chastised farmers for not understanding others' problems. This is a universal complaint—and most industries are threshing around in the business of "image-building." The successful industries appear to be those doing a good job of telling their product or service story; they are giving the public the soundest basis for judgment of their industry's worth to society.

Farmers are part of the food industry—and it could be a major step forward for agricultural people to move away from the image of agriculture as a distinct business outside the normal realm of the American economy. Living on a farm may be a way of life, but this doesn't mean that agriculture—the production of

(Continued on Opposite Page)

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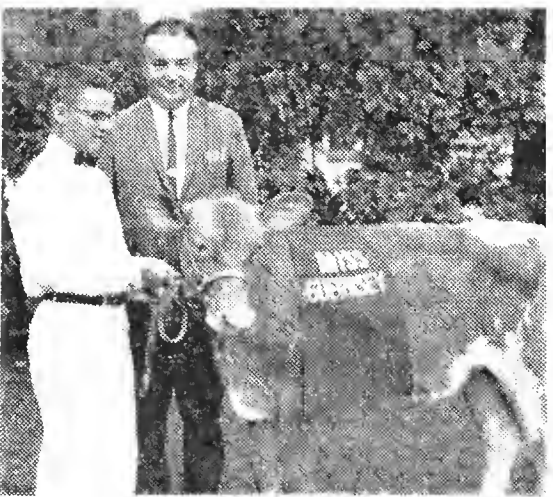
Each year the Purebred Dairy Cattle Association start some lucky boys in the dairy cattle business. The boys (and their calves) pictured below are the fortunate ones chosen from the nearly 600 boys and girls from 40 counties who applied.



Stephen Patsos, Memphis, N. Y., recipient of the P.D.C.A. Ayrshire calf. At right is Delbert Haynes, representing the N. Y. Federation of Ayrshire Clubs.



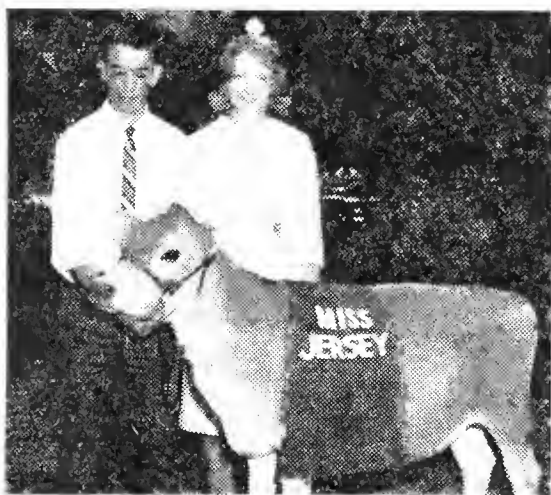
Wayne Frennier of Ellenburg Depot, N. Y., with his Brown Swiss calf. Wendell Street (right) president of the N.Y. Brown Swiss Breeders Association, presented the calf.



Larry Ledgerwood, Penn Yan, N. Y., receiving his Guernsey calf from Joseph Pendergast of the N.Y.S. Guernsey Breeders Cooperative, Inc.



Daniel McGarr, King Ferry, N. Y., with his Holstein calf just presented by Kenneth Patchen, vice president of the N. Y. Holstein-Friesian Association.



Joseph Nagle, Auburn, N. Y., holding his Jersey calf as Janet Nash, Jamesville, New York State Jersey Club "State Show" Queen stands by.



Keith Willes, Ninevah, N. Y., with his Milking Shorthorn calf. With him are H. M. and J. Marlin White, Marathon, from whose herd the calf was chosen.

AGRICULTURE'S STORY

(Continued from Opposite Page)

the raw materials which become the nation's food supply — should be treated differently from other kinds of business enterprises.

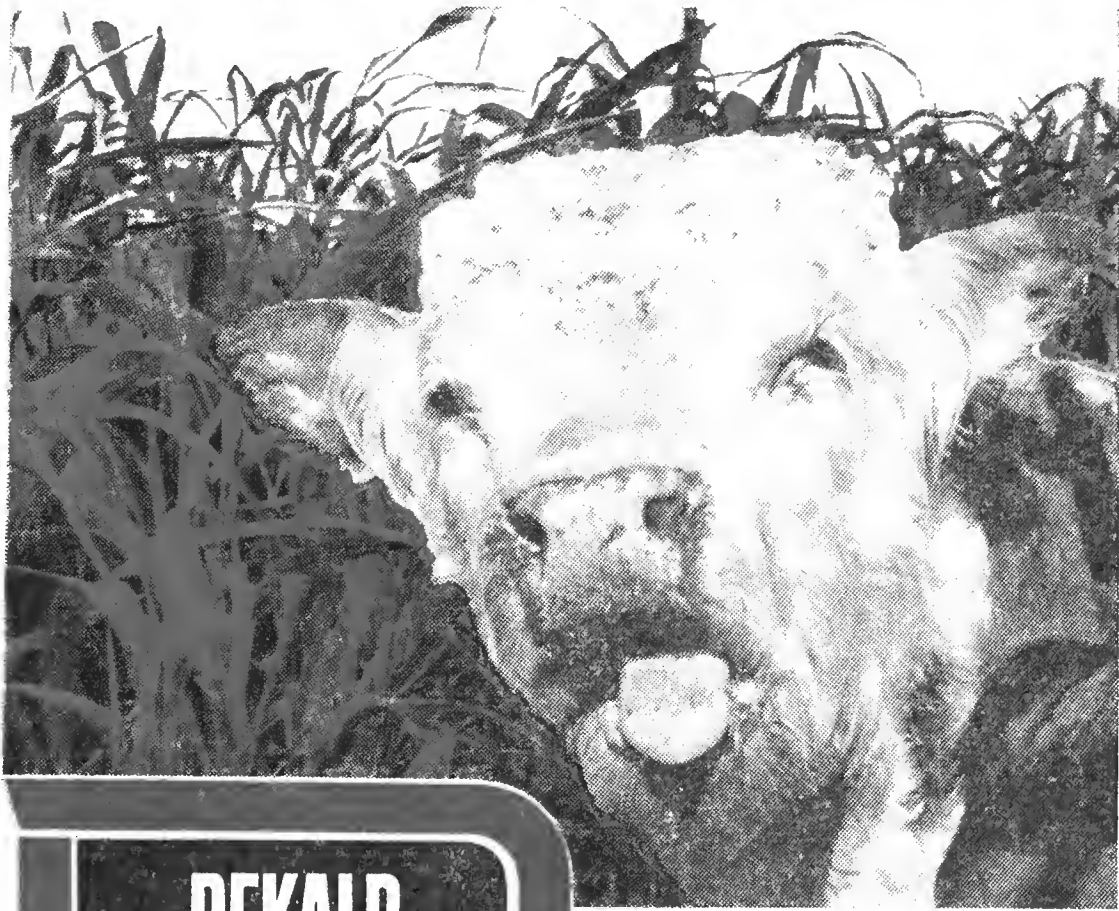
Many efforts have been made to portray the modern American farmer as a highly efficient producer of food and fiber, a man who has learned to employ technology and good management to increase his efficiency at a very rapid rate. This creates a strange paradox. On the one hand, the agricultural segment desires to be respected as one of America's progressive and efficient industries; on the other hand, farm people often give the impression that farmers deserve special consideration because they are farmers.

Being efficient is expected in the American way of doing business. Farmers who strive to become more efficient are doing what is expected of all business in this country. Electric power companies spend a lot of money telling people how much less electricity costs today than it did years ago — yet people still gripe about electric bills!

The major point is this: big, broad, generalized public relations programs on behalf of the sometimes vague entity of agriculture appear to be a haphazard and costly way to go about strengthening the image which farmers want people to have of them. Instead, it makes sense to determine carefully what audiences are important, and what messages should be delivered to them; the messages should make real sense, not merely be messages that make the sender's ego happy.

"Good public relations" is a state achieved through action and not through chest-thumping in public about "how good we are." If enough consumers are pleased with what they are buying with their food dollars, the first step toward good public relations for farmers has been taken!

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Jamaica, one of the most beautiful islands in the Caribbean, is truly a Paradise Isle. One of the picturesque sights to be seen there is the transportation of bananas to market atop the heads of natives.

CARIBBEAN CRUISE

NEXT FEBRUARY, when winter snow and ice have chilled the Northeast, you can travel with American Agriculturist to the lands of perpetual summer for a carefree vacation that will surpass all your expectations! Once again we are offering a glamorous Caribbean Cruise, with fascinating land excursions in six tropical countries. Our cruise directors will, of course, be the Travel Service Bureau of Needham, Mass., the folks who do such a wonderful job in organizing and conducting our tours.

The cruise leaves Port Everglades, Florida, on February 24 and returns March 10. Our home at sea will be the Queen of Bermuda, which about three years ago was completely refitted and redecorated at a cost of four and a half million dollars. Its modern staterooms, spacious dining room, sitting rooms, broad sun decks, and many other facilities make it the perfect cruise ship.

When we sail south on February 24, you will leave behind all your cares and give yourself up to the pleasure of lazy, happy days at sea. You'll never forget the wonderful meals and fine service, the congenial friends you'll make, deck games, diverting entertainment, and the smooth blue waters of the Caribbean. Briefly, here are the places we will see:

St. Thomas, best known of the Virgin Isles, is a vacationer's dream come true. You'll find that the Danish, French, and Dutch have all influenced this resort island. Shopping here is a delight, as you can buy almost anything for less than at home.

Barbados is the most English of the West Indies, both in scenery and in the character and habits of its people. This island differs from the others in the Caribbean in being coral rather than volcanic, and it's completely rimmed with silvery beaches.

Martinique, a French Island in the West Indies, was discovered by Columbus, possibly as early as 1493. Its capital, Fort de France, is a modern harbor city and truly a crossroads of the Caribbean.

Aruba, an island in the Netherlands Antilles, is off the coast of Venezuela. Important for its oil refineries, there is little agriculture on the island, and most of the food is brought over from the South American mainland. This is the only port

of call not included in your all-expense ticket.

Cristobal is the modern American-built port at the entrance to the Panama Canal. While here we will visit the famous locks where a special lecturer will describe actual operations of the Canal.

Kingston is the capital city of Jamaica, the largest and one of the most beautiful of the West Indies Islands. In the mountains and along the coasts are some of the loveliest tropical resorts of the Caribbean.

Optional Tour of Florida

We have added to our Caribbean Cruise an optional 8-day Circle Tour of Florida. On this tour you will see many of Florida's most delightful attractions and spend an extra week in the sunshine.

Some of the places included in our Florida Tour are Silver Springs with a ride on the famous glass bottom boats to view the underwater grottoes, exotic plants and tropical fish; Bok Singing Tower and a recital of the world's finest carillon bells; Cypress Gardens; St. Petersburg and Sarasota's famed Lido Beach; highlights of the Miami-Miami Beach area; West Palm Beach; Cape Canaveral; Marineland, and St. Augustine, America's oldest city.

Those people taking the Florida Tour will gather in New York on February 17 and 18, boarding our Florida-bound streamliner in Pennsylvania Station early in the afternoon of February 18. We arrive in Jacksonville the following morning and board special buses for the start of our vacation in the sun. On our homeward trip, we arrive in New York in mid-morning of March 12.

For full details of both the Caribbean Cruise and Florida Tour, fill out the coupon on this page and mail it today.

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Please send me, without obligation on my part, the Caribbean Cruise itinerary.

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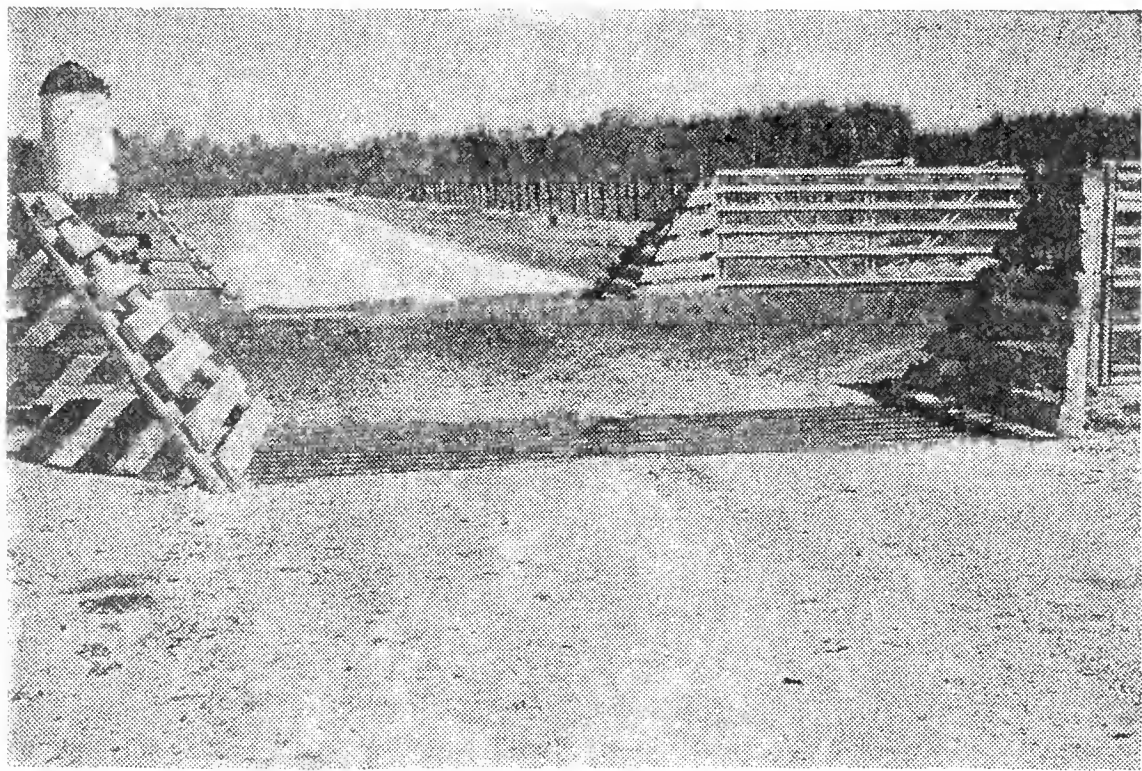
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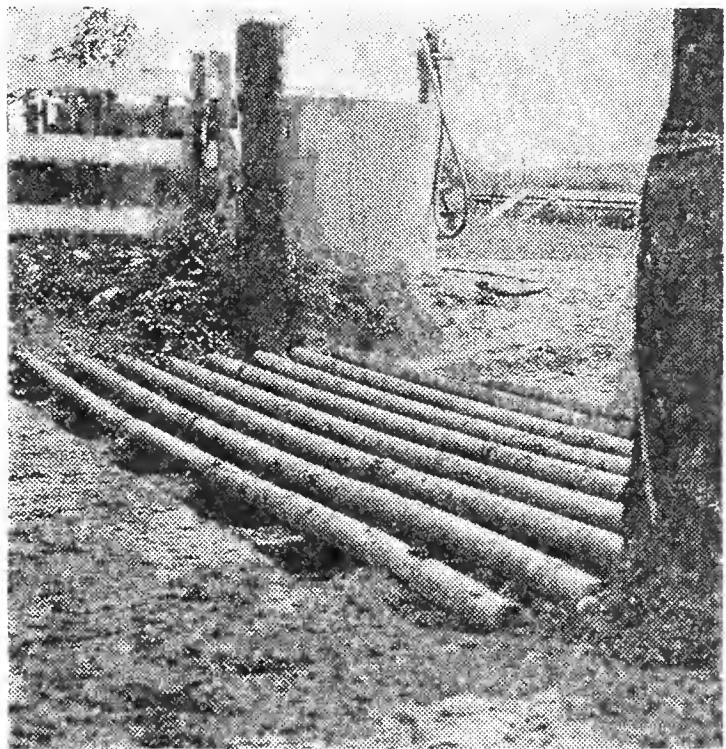
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Above is a double set of cattle guards on a farm in Florida—one on each side of a lane. Below is a cattle guard on the Wilburholm Farm at Greenwich, New York.

Tired of Opening and Closing Gates?



I HAVE OFTEN wondered why northeastern farmers don't use cattle guards more than they do. They sure beat getting on and off tractors to open and close gates! Cattle guards are not advised, of course, where livestock are held in heavy concentrations and may be crowded onto the guard. Neither will they work where livestock may be excited or forced in any way. In many situations, cattle guards

could save a lot of time and effort.

If you're interested in plans, send to Agricultural Engineering Extension, Riley Robb Hall, Cornell University, Ithaca, New York. Ask for Plan 5752 (concrete and steel), Plan 5904 (concrete and wood), or Plan 5903 (entirely wood). The price is 25 cents each.

Plans are also available from the same source for a host of farm structures of all types.—G.L.C.

Care of Farm Tires

THE QUESTION is often asked, which is more damaging to tires, over or under-inflation? The answer depends on circumstances. For example, if you are plowing, an under-inflated tire will be subjected to an abnormal amount of flexing or buckling, which results in breaks or separations of the tire cord.

On the other hand, over-inflation makes for excessive wear in the center of the tread, particularly when the tractor is driven on hard surfaces; this will result in cracking of the rubber.

Here are some suggestions to help you get the most from your tires:

1. Check tire pressure at regular intervals with tire gauge to see that the pressure recommended by the manufacturers is maintained.

2. Pressures should be increased by about 1 pounds in the furrow tire during plowing, and inflation should be great enough to prevent wrinkling or buckling—but not beyond recommended limits.

Tractors being driven between farms brings another tire problem. When tractors are operated on the road, tire pressure should be in-

creased to the recommended maximum. You may notice a bit more wear in the center section of the tread, but there will be less total wear than would be the case with lower pressures.

Watch out for damage from broken glass, nails, bits of wire, and other sharp objects lying around the farmyard. Keeping the yard cleaned up should add considerably to the life of your tires!

CONTRACT FARMING, U.S.A.

This book, by Professor Ewell Roy of Louisiana State University, discusses thoroughly the good and bad aspects of contract farming and vertical integration. It is estimated that 95 percent of all the broilers grown in the United States are produced under some type of vertical integration—the combination of two or more successive stages of production or distribution under the control of one firm. Published by The Interstate Press, Danville, Illinois.

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Ford	8N, 9N	25.7	28.6
Ford	NAA, 600, 700	31.1	36.3
Formall	M, W-6	36.7	53.8
Formall	Su. M, MTA	46.3	55.2
Formall	560 Gas	63.0	72.5
John Deere	60	40.2	44.8
John Deere	720, 730D	56.6	62.2
John Deere	4010D	84.0	93.5
Mosley Harris	44-4	45.6	54.9
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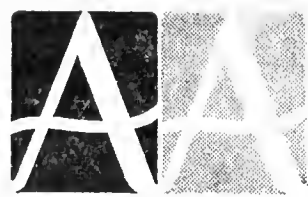
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WANTED — FARMS—LAND—Country Homes—Radius 30 miles Pittsfield — Write Atlas Realty—24 Hamlin, Pittsfield, Mass.

FREE LAND. \$1.25 acre land, vacationing, farming, retirement, business. Millions of acres available. Send \$1.00 for complete "Directory." U. S. Land Disposal, Box 18177-BA3, Indianapolis 18, Indiana.

TRAVEL

IF YOU DON'T LIKE CROWDS and don't like to be pushed around, plan now to join our 1964 10,000 mile, 19 day summer tour in June, July or August. The best Western Tour! See Grand Canyon, Boulder Dam, Las Vegas, Hollywood, Disneyland; visit Old Mexico, Painted Desert, Petrified Forest, San Francisco, Canadian Rockies and Lake Louise by scenic bus. So good, we give a written guaranty; and the price is only \$39.00! We sell out early, so write for free descriptive leaflets now! Shanley International Corporation, 528-A Blue Cross Building, Buffalo 2, New York.

BOARD

WIDOW ALONE will board lady Nov. through May. Home privileges. Lynch, Box 41, Umatilla, Florida.

EARTHWORMS

FREE PICTURE FOLDER, "How to Make \$3,000 Yearly, Sparetime, Raising Earthworms!" Oakhaven-5, Cedar Hill, Texas.

SALESMEN WANTED

SENSATIONAL NEW longer-burning Light Bulb. Amazing Free Replacement Guarantee—never again buy light bulbs. No competition. Multi-million dollar market yours alone. Make small fortune even spare time. Incredibly quick sales. Free sales kit. Merlite (Bulb Div.), 114 E. 32nd, Dept. C-74N, New York 16.

MAKE BIG MONEY taking orders for Stark Dwarf Fruit Trees. Everybody can now grow Giant Size Apples, Peaches, Pears in their yards. Also Shade Trees, Shrubs, Vines, Roses, etc. Outfit free. Stark Bros., Desk 30254 Louisiana, Missouri.

(Continued on Opposite Page)

ADDITIONAL CLASSIFIED ADS

(Continued from Opposite Page)

NEW & USED EQUIPMENT

BARN CLEANERS, silo unloaders, engineered by Patz. New different bunk feeders, manure stackers, replacement chains for all make cleaners, low cost, easy terms. Nold Farm Supply Rome, N. Y. Willard Howland, South ampton, Mass.

NEW—USED COCKSHUTT—Massey-Ferguson—Cobely farm machinery and parts service. Will trade and deliver. Someone needs your extra machinery let us sell it for you. Phone Lowville 85, or write to Ingersoll's Farm Supply Co., Martinsburg, New York.

WANTED — ALLIS CHALMERS Roto Balers Brice Crescy, Andover, Ohio.

USED PARTS—AG Cletrac and T20 crawler. Hubert Gage, Cedar Heights Road, Rhinebeck, N. Y. Phone TR6-4672.

10-TON TRUCK HOIST \$199.99—\$50 down. Can use agents. Dunbar Manufacturing, Chaska, Minnesota.

50 USED MILK coolers, top openers — all sizes—completely reconditioned. Also complete line of used farm machinery. John M. Saums Rt. 69 & 202 Circle, Flemington, N. J.

FARROWING CRATES—Complete with creep end panels and waterer bracket. Only \$22.95. Free Literature. Dolly Enterprises 180 Main, Colchester, Ill.

HELP WANTED

WANTED . . . Middle-aged couple for small farm. Man to do few hours work a week in return for apartment. Many privileges. Opportunity to earn extra money if desired. References please. Laurence Shultis, Box 127, Bears-ville, N. Y.

\$3.00 UP HOURLY for route work. Permanent. Man or woman. Large repeat orders. Write McNess, Dept. 27D, Box 371, Baltimore, Md.

MILKING MACHINE OPERATORS wanted experienced in milking and caring for cows. Excellent housing and boarding house on premises. Steady work, top wages and bonus for right men. Call Mr. Bernon, Garelick Bros. Farms, Inc., Franklin, Mass. 528-9000 days or Woonsocket, R. I. Poplar 9-7996 after 6:00 P.M.

YOUNG WOMAN TO cook and clean for large family in lovely country home in Suburb of Albany, N. Y. Other full-time live-in help already employed caring for children. Own room, bath and TV. 5½ day week. Very good salary. Write to Box 496, N. Yonville, N. Y., stating qualifications and giving references.

WIDOW 63 ALONE, would like retired widower to help share expenses in small home in Auburn, N. Y. No drinking. References exchanged. Box 514-AC, American Agriculturist, Ithaca, N. Y.

HONEY

EXTRACTED HONEY, clover, fall flower or buckwheat. 5 pounds \$2.10; 3—\$5.75; 6—\$10.50. Postpaid 4th zone. Paul C. Lang Apiaries, Box A, Gasport, New York.

CLOVER CHUNK Comb Honey — 5 lb. tin \$3.00, postpaid. Robert Mead, White River Jet., Vt.

WOMEN'S INTEREST

BAKE NEW GREASELESS Doughnuts in kitchen. Sell stores. Free recipes. George, 3605 South 15th, Minneapolis 7, Minnesota.

DRESSES 24c; SHOES 39c men's suits \$4.95; trousers \$1.20. Better used clothing. Free catalog. Transworld, 164-R Christopher, Brooklyn 12, N. Y.

WEAVE BEAUTIFUL afghans, shifts, etc. with Wonderweave Handloom. Weaves 4 inch squares—a whole row at once! Send 25c for pattern book and loom particulars, or \$2.23 including loom. Karbercraft, Box 123A, Northport, N. Y.

YE OLDE WOOL SHOPPE: Samples sent upon request. Mail orders filled promptly. Regular yard goods, remnants, rug material, coatings, suitings and skirt material. Linings and knitting yarns. Kezar Sales Corporation, Dept. H, Kezar Falls, Maine.

QUILT PIECES—Velvetens, Satins or Corduroys—large colorful pieces. Sample pound \$1.00 postpaid. Send for exciting offer on percales. Nucleus, Dept. AA, 24 Laurel Hill Terrace, New York 33, New York.

QUILT PIECES! Beautiful percales guaranteed. 3¼ lbs. \$2. Postpaid. Ward Gould, 92A North, Medfield, Mass.

WEAVE RUGS—MAKE good profits. No experience necessary. Free catalog, sample card, and low prices on carpet warp, rug filler, looms, parts, inexpensive beam counter. If you have loom — advise make, weaving width please. OR, Rug Company, Dept. 0350, Lima, Ohio.

CHRISTMAS CARDS—beautiful selection—21 for 50c postpaid. Bromberg, 1535 Minford Place, Bronx 60, New York.

DEERSKIN GLOVES—the ideal gift. Free folder. Suburban Glove Company, Anthony Pond Road, Gloversville, N. Y.

MARBLE JEWELRY, Wood Fibre, Crafts. Catalog 10c. Flocraft, Farrell 24, Penna.

RUG BRAIDERS: Complete supplies available; precut and prerolled wool—36 standard colors. Braiders—needles—lacing and stand. Send 35c for color chart. Carten Redi-Braid, P. O. Box 61, Devon, Conn., Dept. A.

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AUCTION SCHOOL

LEARN AUCTIONEERING. Free catalog Missouri Auction School, 1330 Linwood, Kansas City, 9-X33, Missouri.

SELLER'S AUCTIONEERING College. Free catalog. 225 South Schuyler, Kankakee, Illinois. LEARN Auctioneering, term soon. Free catalog. Reich Auction School, Mason City 11, Iowa.

AUCTION SCHOOL, Ft. Smith, Ark. Free catalog. Also Home Study Course.

GOVERNMENT SURPLUS

EOLT AND NUT assortment N.F. and N.C. thread—Hexhead assorted sizes ¼ to ¾ to 6 inches long \$15.00 per 100 pounds. FOB. quality guaranteed. Check with order. Rolling Equipment Co., 1125 Military Rd., Kenmore 17, New York.

NEW GOVERNMENT surplus chain saw chains, 78" long. While they last \$36. per dozen. Sample chain \$3.75 postpaid. Send cash. eheck, money order to Northern Sales Co., 3358 W. 25th, Cleveland 9, Ohio.

HAY & OATS

FIRST AND SECOND cutting alfalfa, mixed trefoil and other grades of choice hay delivered by truckload. Weights and quality guaranteed. Bates Russell, East Durham, N. Y. Phone Melrose, 4-2591 before 8 A.M. or after 5 P.M.

HAY AND STRAW available by trailer or earload. Eldreds Farm Supply, Galilee, Pa. Honesdale, Pa. 122R3 & 122R2.

WE CAN DELIVER good quality new crop 1st cutting dairy hay Now s the time to buy. D. Arnold Boyd York New York. Phone Genesco 892.

BEST CANADIAN HAY, \$25.00 ton Vermont. \$30.00 Mass., Conn., N. Y. Shavings \$17.00 ton Vermont, \$21.00 Mass., Conn., N. Y. Nine ton load. Jerry Davis, Derby, Vermont. Phone 766-2637.

STAMPS & COINS

INTERPLANETARY POSTAL Essays 10c. Extraordinarily colorful, interesting approvals. Crown Stamps, Virgil 911, Ontario.

SENSATIONAL—colorful—Philatelic selection 10c. Accompanying approvals. Linstamps, St. Catharines 811, Ontario.

MAYFLOWER STAMP Album 25c 407 illustrations. 64 pages Approvals accompanying. Niagara Stamps, St. Catharines 711, Ontario.

MISCELLANEOUS

STOP ITCHING Promotes healing of piles; psoriasis, eczema. "Roberts Reliable Salve" effective since 1888. Satisfaction guaranteed 3 oz. \$1.00 postpaid Roberts Pharmacy, Lisbon Falls, Maine.

CESSPOOLS, SEPTIC tanks, outhouses, clogged drains cleared. Deodorized without digging and pumping. Sursolvent reduces contents, reclaims leachability. Old systems made to work like new. Free details. Electric Sewer Cleaning Co., 264 Lincoln Street, Allston 34, Mass.

PARTS FOR STOVES, furnaces, coal, oil, gas, electric. Empire Stove Co., 793 Broadway, Albany, New York.

CHUNK WOOD BURNING Furnaces. Daniels Mfg. Company, Hardwick, Vermont.

QUICK JOHN—Cleans septic tanks, cesspools, outdoor toilets. Stops odors, backups. Opens drains. 6 premeasured treatments \$2.50. 12—\$4.50. Money Back Guarantee. Ryter Co., Madelia 20, Minn.

MASONIC and Affiliate Members' Fraternal Gift Items. Write for free Brochures. Wholesale distributor. Schiller's, 136 Halliard Ave., Beachwood, N. J.

QUICK-JOIN FOR septic troubles, outdoor toilets. New, exclusive enzyme-bacterial formula digests solids, grease, paper, etc. Ends backups, odors, pumping, digging. Harmless to plumbing. Six treatments in handy flush packets. \$2.50 postpaid. 14. \$4.50. Money back guarantee! Ryter Co., Madelia 20, Minn.

LEG SORE sufferers—Send for free book on proven Viscose method for relief of pain and aches of leg ulcers, swelling, itch, rash due to deep vein congestion. Works as you walk. Viscose Co., 100 West Chicago Ave., Dept. J. A. Chicago 10, Illinois.

"WILL FORMS" — Five Legal Will Form Blanks, complete with instructions. \$1.00 postpaid. Fully Guaranteed! Frugenheimer Company, Box 158-N77, Lexington, Massachusetts. FOR SALE: Posts and poles, fence posts, pressure treated poles, barn posts, corn cribbing, snow fence, all types of wood fencing. Arnold-Dain Corp., Mahopac, N. Y.

THE SENIOR CITIZENS SENTINEL, a reading must for older citizens. Packed with facts. Only \$2 year. Send for free sample. Dept. A. 1031 S. Grand Ave., Los Angeles 15, Calif.

WRITERS! Book manuscripts wanted. All subjects; fiction, nonfiction. Free brochures give tips on writing, publishing. Write Department 69-K, Exposition, 386 Park Avenue South, New York, 16

DRILLING AND TAPPING hard metals made easy with new cutting oil. \$1.95 for 1-pint can with spout. Monroe Chemical Company, Inc., Hilton, New York.

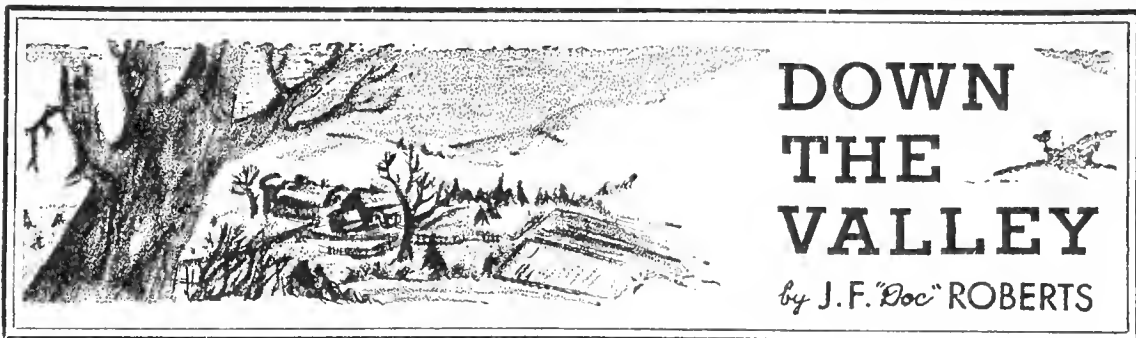
AFRAID OF LIGHTNING? Don't be—call us for free inspection Survey and exact cost on complete lightning rod service. Morse-Collins, Inc., 148 Coddington Road, Ithaca, N. Y. Phone AR 2-8550.

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* Blu-Kote dries up cowpox lesions, controls secondary infection. Germicidal. Fungicidal, protective wound dressing. Quick drying . . . penetrating. 4 oz. bottle \$1.00 at dealers or mailed postpaid. H. W. NAYLOR CO., Morris 2, N. Y.

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DOWN THE VALLEY

by J. F. "Doc" ROBERTS

JOHN WILLMAN of the "An Hus" Department of Cornell University —Professor Willman, if you will — has passed.

No livestock man ever heard anyone call him anything but John. "John" meant just one man, and yet many things to any one of us—respect, even love, best friend, best teacher, the best livestock man of us all.

Why respect? Because he knew that no two animals were exactly alike any more than two humans. This was ever and always a part of him. He handled you or them, and even himself, with **individual** thought and compassion.

Why the best teacher? Because he never "taught!" He found out what you didn't know or were doing first; then slowly, gradually, he began working with you on your problems until you knew, too. This he applied to his students (and how they came to him) as well as every farmer, livestock man, feeder, breeder, or what have you.

I once heard him say, "No human being was ever born who could stand criticism," and he taught us all without it.

A great man to everyone who knew him—a great authority in the livestock world in which he lived—and a great loss.

To Sprout or Not To Sprout

PROFESSOR Jesse Scholl, forage specialist at the University of Wisconsin, has been studying experiments which test the validity of claims that sprouted grains increase fertility and milk production, bring higher butterfat tests and make healthier animals.

Scholl's studies indicate that although there may be some slight benefits from sprouted grains they are not great enough to justify the cost of sprouting equipment, which runs into thousands of dollars.

Another point is that sprouted grains are more expensive on the dry weight basis. Sprouting of oats results in an increase in weight, but this is due to increase in the water content—there is actually a loss in dry matter.

One experimenter found no marked effect upon reproductive functions of either heifers or bulls from

feeding sprouted grains. In another experiment, sprouted corn feeding produced no favorable effect on yield, fat, solids-not-fat, vitamin A, vitamin B complex, or growth-promoting properties of milk. And still another experiment indicated no difference between sprouted corn and silage for milk production.

Actually, researchers have found that milk yield and vitamin content of the milk were lower with the sprouted oat supplementation as against oat grain. And so long as there is sufficient calcium and phosphorus in the ration, the claim as to increase in calcium with sprouted oats is not critical.

What happens when you sprout grains? There is little or no increase in crude protein, some increase in fat, little change in crude fiber, definite increase in carbohydrates and little change in ash.

NEW LAND APPRAISAL SYSTEM

The New York State Department of Public Works has under consideration a new technique in estimating what should be paid for property acquired by the State for or near a new road. It is expected that the new system will be in operation by the end of 1963.

Until now settlements for loss of value have been made to owners when a highway caused property to be segmented or cut off. However, experience has shown that such par-

cels may sometimes become more valuable as a result of traffic generated by a new highway, while others, of course, may become "land-locked." A "before and after" method is being developed, whereby property acquired will be paid for on the basis of the land's value before the new highway is built and its value after the road is completed.

PRINTING NOTICE

Effective with our January 1964 issue, all printing will be offset.

Classified advertising rate 30 cents per word, initial or group of numerals. Payable in advance.

Classified display rate \$2.50 per line.

Livestock display rate \$1.50 per line.

Published 1st of each month; closing date 30 days before date of issue.

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CHOOSING



PLAY



TOYS



By RUTH RAIMON*

In the top picture, we see a little boy experimenting with modeling clay. He's completely engrossed, as he makes one fascinating thing after another. In the lower two pictures is David Raimon, the author's two-year-old son. I'm not sure if he's a fire chief or an army sergeant in the middle picture, but at the bottom, he's on a race track, speeding toward the finish line!

WHAT TOYS shall I buy for Ricky and Wendy?" Grandma writes, as regularly as birthdays and holidays roll around. What is a good answer? After a typical busy day with young children, during which you have tidied up and tripped over playthings seemingly a hundred times, the temptation is perhaps almost overpowering to reply with suggestions of cash, clothing or books—no more toys, please!

But sales records of the multi-million dollar toy industry tell us that such temptations are often pushed aside. With toys available at nearly every store, including the supermarkets, to NOT buy toys is often difficult. So we buy, and the result, as in my house, may be boxes or closets cluttered with plastic fallout and broken playthings that quickly lost their initial glitter.

Mothers often complain, "My child has every imaginable toy, but he can never find anything to do." This dilemma—toys, but no play—may be solved to some extent if we better understand our child's play, its value, and the kinds of toys that really promote play.

Development Through Play

For the child, play is not just amusement. It is his business, his life! He puts his heart, mind and body into it—experimenting, discovering, creating, imagining. Few things in life are as much fun as watching young children at play. And no wonder, for almost everything a child learns during the crucial first six years of his life is through some form of play.

Romping in the fields, jumping on an old mattress, riding a tricycle, cutting his own "intricate" designs from newspapers, or pushing crayons around a big piece of paper, he learns to control and master his body. Through play, too, he discovers what his widening world is like by countless, simple lessons—snow is cold, concrete is hard, and water spills out of an overturned glass.

It is difficult for us to recall how many simple truths, ideas, and feelings became a part of each of us in growing up, as we encountered them in play and made them our own. Indeed a child's rate of growth and capacity for forming new opinions is probably greater during the preschool period than at any other time in his life. This alone is challenge and incentive enough to regard seriously the selection of play materials.

Since play occupies most of the young child's waking hours, it is chiefly through playing that the youngster realizes he is a unique individual and learns that often he must come to terms with the people around him.

Each of us, at some time, has seen a child pretending to be someone else. Acting out the role of mother, father, or baby brother, the child deepens his understanding of himself and of others. Also, he finds satisfactory ways to express his feelings, both happy and hostile.

Choosing Play Materials

In a helpful book for parents, "Understanding Children's Play" by Ruth E. Hartley and Robert M. Goldenson, the authors observe that "when we buy toys, . . . we should expect a fair return for our dollar in terms of play interest, encouragement, improvement of skills and length of service . . . and price is often no criterion of the toy's worth. While a cheap toy may be worse than no toy at all, not all expensive toys are good toys." But how does one decide whether or not a specific toy is a good investment?

Certainly the range of choice is wide and ever growing. Especially now as the holiday season approaches, toy manufacturers swamp our retail stores and mail-order catalogs, and their advertising swamps our children! Elaborate and shrill television commercials tell them that they must have the lifelike, elegant, marvelous (and usually expensive) creations that are this year's rage.

We can't blame our children for wanting these toys that seem to perform so impressively, but once acquired, what else is there to do with them—after the string is pulled or the button pushed? Such toys leave little or nothing to the child's imagination and are only play substitutes. Actually, they deprive him of play opportunities rather than create them.

On the other hand, there are available a great variety of toys and play materials that do help the child exercise his imagination. It is difficult to list exactly what one should look for when

buying or making new toys, but in general, A GOOD PLAY MATERIAL IS ONE THAT:

1. Is geared to YOUR child's personality, current interests and ability.
2. Lends itself to a variety of play situations. A toy that encourages the child to take pride in exercising his initiative and imagination is better than one that merely displays the engineering talents of the designer.
3. Is well constructed and safe — sturdy enough to withstand hard use, and free of sharp, rough, splintery areas and toxic paint. Also, simple wooden toys are usually the most easily repaired.
4. Is attractive but simple in design, and appropriate in color.
5. Promotes rather than discourages your child's development—his body control, his thinking, and his learning to live with others.

It's impossible to list here specific toys that are appropriate for children of all ages, but recommendations for each age level, from infant to teenager, are discussed in "Understanding Children's Play." Excellent lists of books and records for each age are also given.

In looking over your child's present playthings, with the idea of adding something as occasion arises, these suggestions may help. His play materials might include:

A good wheel toy.

Climbing equipment such as boxes, planks, short ladders.

A safe sled or other snow toy, since we in the Northeast usually have several months of snow.

Blocks for indoor and outdoor use.

A place to dig, with tools for digging and sifting.

Many items encouraging "pretend" play — a simple baby doll, dress-up clothes, including all kinds of hats, and simple, child-size furniture.

A big tub or pan with pail and paint brush for water play.

Items that fit together, such as puzzles, form boards, stacking toys.

Carpentry tools.

Things that can safely be punched, thrown or kicked.

Nature and science materials.

A "special," dearly loved toy—often the cuddly teddy bear or sometimes a well worn blanket.

Happily, many play materials can be found in your kitchen or workshop — strainers, pots and pans, plastic bottles cut to form wide-mouthed containers and a funnel, large head nails, soft wood scraps, and so forth. Sometimes, too, new toys can be made at home as a family project, giving the child added pleasure as he sees the toy grow.

A pamphlet, "Wooden Toys You Can Make at Home" (S27), gives clear, illustrated directions for inexpensive and sturdy toys such as building blocks, color pyramid, a puzzle board, steering wheel, small truck, and several others. This booklet costs 25 cents, and you can order it from:

Mailing Room
Dept. of Extension Teaching and Information
Stone Hall, Cornell University
Ithaca, New York

Frequently, new ideas for making toys at home are also shown in women's magazines.

As parents, we might think of ourselves as stage managers and directors for our children's play. We arrange their play space, provide carefully selected, suitable "props," and give them boundless love, warmth and support.

* Mrs. Raimon, mother of four, is Extension Specialist in the Dept. of Child Development and Family Relationships at the N. Y. State College of Home Economics, Cornell University.

— American Agriculturist, November, 1963



VISITING

with

Home Editor Augusta Chapman

DID YOU GET to the New York State Exposition in Syracuse this year? I spent two days there and among other things enjoyed the greatly improved (over 1962) Home Arts Department and two foods demonstrations by the Home Economist for Armour Company.

I watched her make a Cherryapple Pie from start to finish, and it looked like a prize winner in every respect. Trying it at home, we found it tasted pretty good too. Of course, Armour Lard was used for the crust (that's what I learned to make pie crust with, and is still my favorite), and here is her recipe:

CHERRYAPPLE PIE

Make pastry by combining 2 cups flour and 1 teaspoon salt. Cut $\frac{3}{4}$ cup Armour Star Lard into flour until mixture resembles coarse meal. Sprinkle $\frac{1}{4}$ cup cool water over mixture. Form dough into 2 balls and roll out on lightly floured board or pastry cloth. Fit lower crust into 9-inch pie pan.

Distribute 1-pound can (1 $\frac{1}{2}$ cups) drained red pie cherries over unbaked crust. Add 4 cups sliced tart apples. Top with 1 cup sugar, $\frac{1}{4}$ cup flour, $\frac{1}{4}$ teaspoon salt, $\frac{1}{2}$ teaspoon cinnamon, and 2 tablespoons butter. Fit on top crust, trim and crimp edges. Gash top and bake in 425°F. oven for 35 minutes or until crust is browned.

Try it and see if you don't agree it's a nice combination of two all-time favorite fruits.

Luncheon Speaker

Judge Madge Taggart of Buffalo was guest speaker at the Exposition Women's Day Luncheon, and I enjoyed her more than anyone I've heard for quite a while. She opened her talk by saying, "If we could only recapture in this Country and throughout the world the good feeling and fellowship of Fairs, what a different world this would be!"

Then, speaking to the women, Judge Taggart said she felt we have dissipated the heritage handed down to us by Susan Anthony, Elizabeth Cady Stanton, and others. She wonders where these smart women are who should be serving on juries and participating in other government processes. These rights were struggled for by the women of yesterday, and there should be no such thing as "a man's world and a woman's world." One world was fought for in the halls of Congress.

"Our future is in letting the men know we don't want to take over," said Judge Taggart. "We only want to help and to assume our own responsibilities. We have something of our own to offer and that in conjunction with the men's point of view. We should and must be on a par in all areas of society, with no 'off-limit' signs for women in the Space Age."

Judge Taggart concluded by saying that we must never forget our femininity nor our task as wives and mothers, as this is our God-given task; the others were fought for.

Nurses Graduate

My first assignment upon becoming a member of the AMERICAN AGRICULTURIST staff in May 1961 was to

interview Mrs. Mildred Stevenson, R.N., who at that time was director of the School of Practical Nursing located here in Ithaca, N. Y. My story on "How To Become A Practical Nurse" ran in our July issue that year.

Ever since then I have been invited to the School's graduation exercises each time a class of girls completed the course. Something has always made it impossible for me to attend until this September when I was there to see the 28th Class (17 members) of the Ithaca School of Practical Nursing receive diplomas from Dr. James I. Mason, Superintendent of Ithaca Public Schools.

Miss Martha E. Gibbs, R.N., current director of the school, is apparently continuing the high standards of appearance and conduct started by Mrs. Stevenson, for I don't know when I've seen a group of neater looking, more poised young women.

Dr. G. Alex Galvin, who the day before had completed 25 years of practice here in Ithaca, spoke to the class on "The Art of Getting Along with People." Dr. Galvin told the girls it was especially important for nurses to develop this art and gave several rules which, it seemed to me, we all can use.

Dr. Galvin suggested that the girls strive to:

1. Acquire a basic understanding of people and a feeling of responsibility for others.
2. Be loyal to their associates.
3. Be natural with all classes of people and show good taste in conversation and dress.
4. Learn tactful judgment, neither condemning nor condoning.
5. Develop a pleasing personality with qualities of generosity, a willingness to cooperate, sincerity, and evenness of temper.

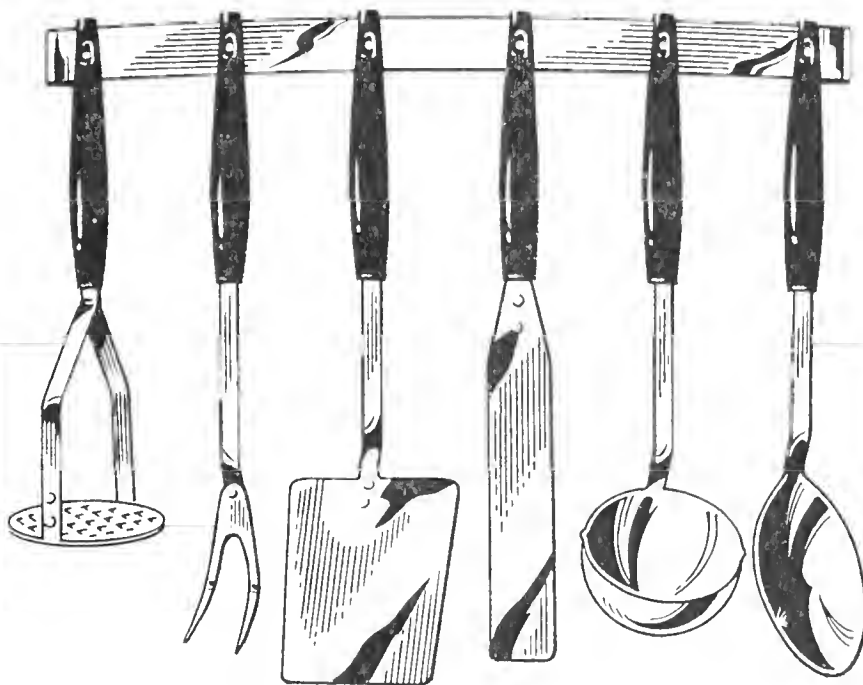
Sounds like good suggestions for all ages and occupations!

Smokey Bear—A Success

"Smokey," who himself was rescued from a forest fire 13 years ago, has been the symbol of a nationwide fire prevention campaign, and he has done his job well. Fires in National Forests were at a record low in 1962. The U. S. Department of Agriculture reports 11,486 forest fires (87,903 acres burned) last year compared with 15,159 fires (224,393 acres) in 1961. And Forest Service officials believe that in urging everyone to be careful about snuffing out matches and campfires, Smokey has done a lot to cut down the horrible waste of resources and money that comes from any forest fire.

About a year ago, the U.S.D.A. announced that a bride had been chosen for Smokey. This was strictly one of these "arranged" marriages and not Smokey's idea! At that time the two bears were being kept in adjoining cages at Washington's National Zoological Park so they could get better acquainted. I've hoped the Department would tell us if the bears did set up housekeeping and whether or not we can expect

(Continued on Page 43)

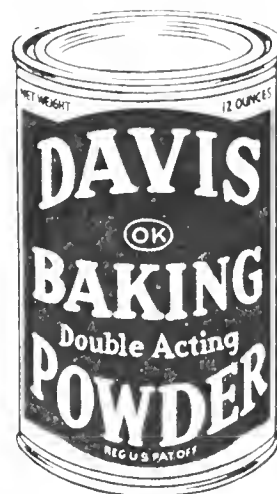


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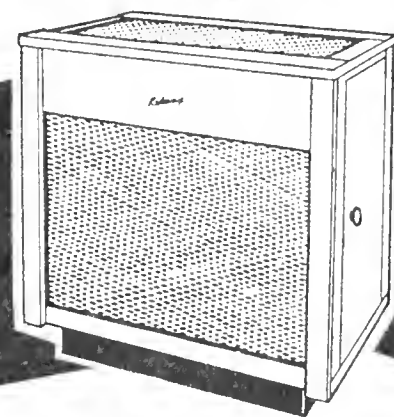


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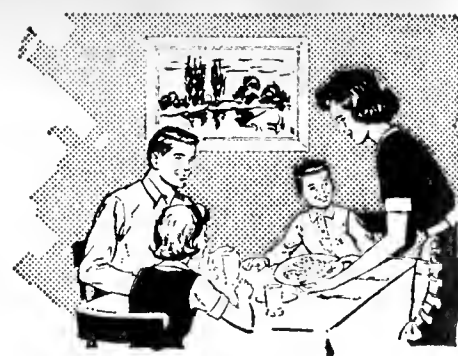
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American Agriculturist, 10 No. Cherry St., Poughkeepsie, N. Y.



'Round the kitchen

with Alberta Shackelton



THIS YEAR, as usual, most families will choose some form of roasted, stuffed poultry for their Thanksgiving dinner. Whatever bird is chosen, stuff it lightly **just before roasting**. If you wish to prepare bird and stuffing the day before, refrigerate them separately.

Place the stuffed poultry in an uncovered, shallow pan (without water), and roast in a slow oven (325°) according to approximate time given in the chart on this page. If you are roasting duck or goose, you may wish to increase the oven to 425° towards the end of roasting to add color and crispness to the skin.

If you use a thermometer (inserted so bulb is in center of thigh muscle), it should register 190 to 195° when the bird is done. Other signs of doneness include easily moved leg joints and soft flesh on leg and thigh. Your bird will carve more easily if cooking is finished 20 to 30 minutes ahead of serving time.

Boneless Turkey Roast

You may choose one of the newer frozen Boneless Turkey Rolls or Roasts for your holiday meat. These provide solid slices of meat in natural proportions of white and dark meat. Leave roll or roast in original wrapper and thaw in refrigerator from 1 to 2 days, or thaw under cold running water. Remove wrapper but leave string in place while cooking. Rinse with cold water, drain, and pat dry. If meat has not been preseasoned, rub lightly with salt and pepper.

Place on rack in shallow baking pan, brush entire roll with melted butter, and place in a preheated moderate (350°) oven. Baste or brush occasionally with melted butter or pan drippings, giving special attention to dry areas. If roast becomes too brown, cover with a loose tent of foil. Continue roasting until meat thermometer inserted in center of roll registers 170 to 175°. Use pan drippings for making gravy.

In some areas it is possible to buy fully cooked frozen turkey rolls. These need only to be thawed and sliced to serve cold, or heated in a moderate oven if you wish hot turkey.

Frozen Cranberry Puree

This is a different way to serve the traditional go-along cranberries for the holiday meal. Cook together 1 pound cranberries and 2 cups water until all skins have popped. Press through a food mill or strainer. Add about 2 cups sugar to each quart of your puree, or sweeten to taste.

Pack in rigid freezing containers, leaving ½ inch head space in pint containers, and more in quart containers. More head space is also required in narrow-top containers. Freeze. Serve the puree slightly thawed for a dessert or to accompany the holiday bird.

Much of the rice on the market today is enriched with important minerals and nutrients which go down the drain if the rice is washed

before cooking, or drained and washed afterwards. It is already clean and ready to cook, thanks to modern processing methods. If you use correct amounts of water and the right cooking methods, the rice will absorb the water, and there will be nothing to drain.

To prepare rice, top-stove method, place 1 cup enriched white rice, 1 teaspoon salt, and 2 cups boiling water in a covered saucepan, and cook slowly about 20 minutes. Remove from heat, and let rice stand covered 10 to 15 minutes.

My favorite method for cooking rice is the easy oven method. Place 1 cup enriched rice, 1 teaspoon salt, 1 tablespoon butter, and 2 cups boiling water in a 1½ quart casserole. Cover tightly, and bake 30 to 35 minutes in a moderate oven (350°). Rice may be stirred once with a fork during the baking process. Serves 6.

Home Prepared Lunches

A recent survey showed that someone in well over one-third of the homes visited carried a packed lunch at least three times a week. More than half of the lunch toters were men over 18, and one-fifth were children under 13. All of this indicates that many homemakers have a big responsibility planning and preparing lunches for their families to eat away from home.

A nutritionally adequate lunch, no matter where eaten, needs to supply about one-third of the whole day's needs. It should contain foods from each of the basic food groups—meat, milk, bread-cereal, and fruit-vegetable, the amount of each determined by age, activity, and physical condition of the eater.

A pretty good guide to follow is the Type A lunch served in schools under the National School Lunch Program. Such a lunch must include ½ pint milk, ¾ cup vegetable or fruit (or a combination of the two), 1 or more slices of enriched or whole grain bread, 2 tablespoons butter, and one of the following: 2 ounces lean meat, fish, poultry or cheese; 1 egg; ½ cup cooked, dried beans or peas; 4 tablespoons peanut butter.

Soup, a sandwich with relish or salad, dessert, and beverage is a popular and easy-to-pack lunch pattern. Every family has its soup preferences. To do away with "sandwich blues," vary the type of bread or rolls used and spread with butter to prevent filling from soaking bread. Also, make the lunch box interesting with protein-rich sandwich fillings of cold cuts, eggs, cheese, luncheon meats, peanut butter, and small amounts of leftovers for variety.

This and That

Do you always store, handle, cook, and serve the foods you select for your family's health so as to conserve the precious nutrients, minerals, vitamins, and proteins? Some of these nutrients are fairly stable, others readily lost in handling. A new bulletin from the U. S. Department of Agriculture suggests ways for handling foods in the home to conserve nutrients, and a single copy of this bulletin, "Conserving Nutrient Values of Foods" (HG-90), may be obtained free from the Office of Information, U. S. D. A., Washington, D. C., 20250.

If there are older folks in your family, you might also like to have a copy of "Food Guide for Older Folks" (HG-17). A free copy of this bulletin may be obtained from the same Washington address.

Don't throw away chocolate just because it turns white. This occurs when chocolate is kept at too high temperatures. It is caused by the cocoa butter melting and coming to the surface, and then turning white when it hardens again. The brown color returns when the chocolate is melted.

Fruits and vegetables are important in everyone's diet. Their low calorie content makes them especially good for the person who is watching his weight. Here is a calorie count for some fruits and vegetables (half-cup portions unless otherwise specified), served **without** added fat, sugar, or sauce. **10 to 15 calories:** cabbage, snap beans, greens, cauliflower, celery, mushrooms, green peppers, kraut. **20 to 25 calories:** summer squash, asparagus, carrots,

turnips, tomato juice. **30 to 40 calories:** brussel sprouts, cantaloup, onions, berries, cherries, raw pineapple, 1 peach. **50 calories:** 3 apricots, 2 large plums, 1 medium orange.

More About Sifting Flour

Many recipes for baked products now call for unsifted flour, but many recipes still in use were developed in the days when all flour was sifted, and the measurements are for sifted flour. Since there is more flour in a cup of unsifted flour than a cup of sifted flour, food specialists in the U. S. Dept. of Agriculture say you must either sift before measuring or adjust the measurement to get the right amount of flour for these older recipes.

To adjust a measurement from sifted to unsifted flour, simply spoon flour into the dry measuring cup, level it off, and remove 2 level tablespoons. If your recipe calls for spices or cocoa, you may still want to sift them with the other dry ingredients for uniform blending.

To Make Batter Stick

Everyone likes a nice crispy crust on fried chicken, and not one that comes off during frying. Here is the trick to accomplish this. Instead of rolling the uncooked chicken in the batter, cook it first. Then dip the fried pieces in batter and fry them in deep fat just long enough to brown and cook the coating. When raw pieces dipped in batter are cooked, the batter coagulates before the meat shrinks, and the shrinkage and pressure from steam cause a loose-fitting coating that peels readily.

November Plentiful Foods

Turkeys and cranberries, Thanksgiving traditional foods, will top the list of plentiful foods for November. Apples, grapes, and potatoes continue on the list, and Maine sardines are also in good supply.

You will want to take advantage of the good supply of potatoes. Because they are eaten in considerable quantities by many families, they are an important food. One medium-size potato (boiled in jacket) provides about one-fourth of the daily allowance of ascorbic acid for the adult, also small amounts of iron and thiamine. This will be of help to families who use less than the recommended amount of citrus fruits.

"Potatoes are probably the cheapest food served on the U. S. table," according to agricultural economists. The price of potatoes does vary with the season and variety, but much of the time the cost per serving is between 2 and 3 cents.

Store potatoes in a cold, dark place where the temperature does not go below freezing. Mature, sound potatoes keep well in a dark place at room temperature for two or three weeks. While the green skin on potatoes caused by long exposure to natural or artificial light is not dangerous, it may give the potatoes a disagreeable taste when cooked.

TIMETABLE FOR ROASTING STUFFED CHILLED POULTRY
From "Handbook Food Preparation"—American Home Economics Assn.

Kind of Poultry	Ready-to-Cook Weight (Lbs.)	Approx. Amount Stuffing (Quarts)	Approx. Roasting Time (Hours)
CHICKEN:			
Broilers & fryers	1½ to 2½	¼ to ½	1¼ to 2
Roasters	2½ to 4½	½ to 1¼	2 to 3½
Capons & caponettes	4 to 8	1¼ to 1¾	3 to 5
DUCK:	3 to 5	½ to 1	2½ to 3
GOOSE:	4 to 8	¾ to 1½	2¾ to 3½
	8 to 14	1½ to 2½	3½ to 5
TURKEY: Fryers or roasters (young birds)			
	4 to 8	1 to 2	3 to 4½
Roasters, (fully grown, young)			
	6 to 12	1½ to 3	3½ to 5
	12 to 16	3 to 4	5 to 6
	16 to 20	4 to 5	6 to 7½
	20 to 24	5 to 6	7½ to 9
Halves, quarters & half-breast			
	3½ to 5	1 to 1½	3 to 3½
	5 to 8	1½ to 2	3½ to 4
	8 to 12	2 to 3	4 to 5

Rural-Urban Understanding

By MRS. DONALD TUTHILL

Chairman New York Farm Bureau Women's Committee

TODAY'S PUBLIC image of American farmers is a pretty distorted picture! We are thought of as individuals whose hands are continually outstretched for government aid, and our ability to produce in abundance is considered a national scandal, rather than the greatest asset this Country has in its struggle for world freedom. Incidentally, it's an asset for which Mr. Khrushchev would give his eye teeth.

What has caused this all-too-general feeling about farmers? As an aid in understanding why we are cast in our present role, let's take a look at what has happened to agriculture in recent years.

During World War II, it was considered necessary to have high price supports as an incentive to increase production. Certainly, no one will dispute the need for top production during the war years. Also, it is only fair to assume that supports would have to continue for a brief period after the war, giving farmers time to level off production to the needs of a peacetime market.

This did not take place, however, and now, almost twenty years after the end of the war, high price supports are still with us. Such emphasis on government-guaranteed material possessions has been said to be the "American Way of Life," but it most certainly is not freedom, and many American farmers want no part of it.

Thus Congress and others in our Government must take their share of blame for the unfavorable picture the public (and especially the urban population) has of the American farmer. So also must those who repeatedly request and vote for government solutions to agriculture's problems.

We wonder why these people don't look around and see that the crops in real trouble are those very ones which have depended too long on high price supports. Many other crops are in a far healthier condition.

Recognizing the real need for better rural-urban understanding, New York Farm Bureau women hold each year in April what we call Rural-Urban Day. The State Women's Committee, consisting of twelve members—one from each of the eleven districts across the State, plus the chairman—entertain a group of

women leaders from other organizations and occupations. This group includes wives of State officials, presidents of various State organizations, women editors of New York City newspapers, and others. On the same day, across the State, County Women's Committees are entertaining similar groups at the county level.

Our Rural-Urban Day is an exchange-of-ideas program, and we want our guests to know that to many of us who farm for a living, the present government program is a real problem. Its continuation has led to a greater loss of freedom for us, and to huge surpluses in warehouses across the country. We in the Farm Bureau are working for freedom and the competitive enterprise system.

We hasten to assure our guests that the Farm Bureau family knows there are no easy answers to our

problems, and we do not profess to have all the answers. We realize we have a long road to travel, but feel we are headed in the right direction. And we do know that freedom is worth working and fighting for.

Rural-Urban Day is now three years old. As it is held from year to year, the women of Farm Bureau hope we are helping to promote better understanding between those who live and work in rural areas and our city friends and neighbors.

NEEDLEWORK LEAFLETS

WE STILL HAVE on hand a fairly good supply of the following needlework instruction sheets: Bedspread, Kitchen Set, and Milk Glass Jackets offered in our May 1963 issue; Crib and Carriage Cover, Tablecloth, Crocheted Slippers for Women and Girls, and Boy's Pullover Sweater offered in our October 1962 issue.

Send 10 cents (in coin) for each leaflet desired to: Mrs. Augusta Chapman, Home Editor, Box 367, Ithaca, N. Y.

VISITING

(Continued from Page 41)

an heir to the Smokey name, but so far I haven't heard.

While on vacation this summer, we saw an example of the terrible scars left by a forest fire. As we drove into Deadwood, South Dakota, we noticed that the hills, completely surrounding the little village, were covered with stark, dead, burned-black tree trunks. We knew, of course, that this particular fire had been too recent to give the town its name, but it was so descriptive that we were startled.

Up on Boot Hill, where Wild Bill Hickok, Calamity Jane, and Preacher Smith are buried, we talked with one of the cemetery caretakers. He told us that years ago there had been a multi-million dollar fire which had destroyed the town and burned over thousands of acres of woodland. He said he thought the name "Deadwood," came as a result of this earlier fire, but that some people claimed it was given the town after an infestation of insects had destroyed the trees.

Journey To Day Before Yesterday

In Time For Christmas — Ed Eastman's New Book

Come with your friend Ed Eastman on a pleasant, humorous, and nostalgic journey to the times of his youth when life was simple and uncomplicated. Travel with him to visit his BORNING GROUND, the NEIGHBORHOODS, and funny but good NEIGHBORS of long ago.

Experience with him all sorts of scrapes with all kinds of HORSES, and ride with him in exciting adventures in his first AUTOMOBILE at the unheard of speed of twenty miles per hour.

Sit with Ed and the boys of his youth around the big sap pan in the old sugar house all night when there was a "big run" of MAPLE SAP on, and listen to the wild tales that were told.

Meet the GENTLEMEN OF THE ROAD of half a century ago—the TRAMPS, the PACK PEDDLERS, the TIN PEDDLERS, the GROCERY CARTS and the first RURAL FREE DELIVERY mailmen.

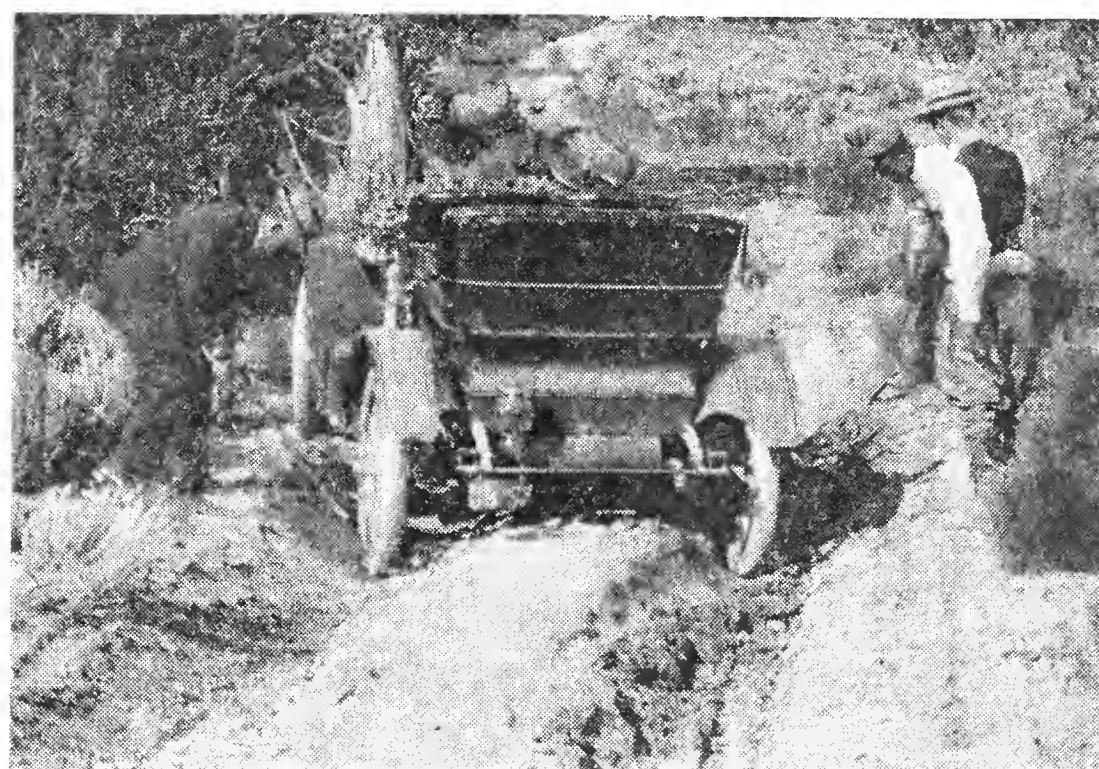
Spend two weeks with Ed and the menfolks of his family in the DOGHOUSE in the early spring while his mother cleans house.

Swim with the boys on a Sunday afternoon in nature's own, no girls allowed, in the old swimmin' hole and dry off in the sun while you dream of the future.

Bid with him against his own wife at an OLD-TIME COUNTRY AUCTION.

Go to school with Ed in the little RED SCHOOLHOUSE which was white.

In short, live with your friend, the author, through the greatest



revolution in history, the most changes in the coming of the farm organizations and cooperatives, and all the modern gadgets that have almost completely changed your life and mine—all in one lifetime.

Best of all, when you read this book, the author assures you of a return trip ticket from THEN to NOW with the privilege of looking forward to all the continued miracles that the future holds.

This beautifully bound book with nearly 300 pages and over 100 pictures will enable you—if you're over 40—to relive your life and—if you're young—to know what life was like when the author and his friends were young, hardworking, but full of fun and devilry.

Who better could guide you on such a pleasant, funny, and interesting trip than your friend, E. R. Eastman, who was for 35 years editor of AMERICAN AGRICULTURIST

and who, as a farm boy and man, actually lived all through the wonderful times and changes he tells you about?

What better Christmas present could you make to a friend? What better reading for anybody at any time?

You'll love every minute you spend reading — JOURNEY TO DAY BEFORE YESTERDAY — with its nostalgic memories and down to earth philosophy of Ed Eastman, the author.

Get this brand-new book in time for Christmas giving. Album size, nearly 300 pages, over 100 historical pictures. Send your check or postal money order for Journey to Day Before Yesterday at \$5.95 each, ppd, to American Agriculturist, Dept. Book, Savings Bank Building, Ithaca, N. Y.

THANKSGIVING

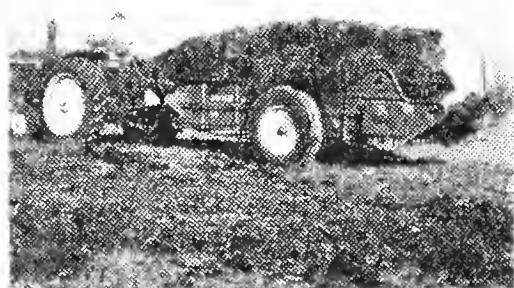
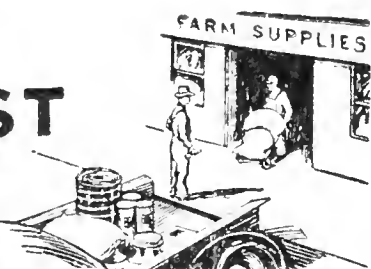
By Eleanor A. Chaffee

Our thanks seems such a trivial thing;
A tiny whisper on the tide
Of turmoil in a world grown loud
With sound of arrogance and pride.

But as of old the still, small voice
Entered the heart of man; today
Perhaps our gratitude may serve
To find its faltering, trusting way

To Him Who holds within His hand
Each loved one, and so is aware
Of every upward thought that lives
Even within the frailest prayer.

With AMERICAN AGRICULTURIST Advertisers



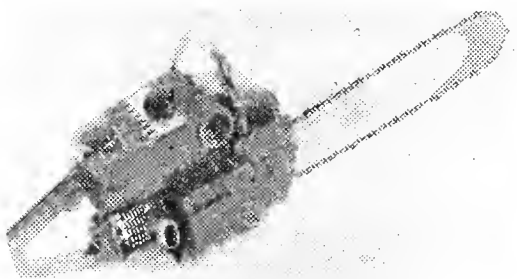
A 185-bushel PTO-powered manure spreader has been developed by JOHN DEERE, Moline, Illinois. This new two-wheeler is called the 44 Spreader, and is the first John Deere Spreader to offer farmers a choice of single or triple beaters.

The single beater consists of a large hollow drum with enclosed ends. The triple beater includes a four-bar upper beater and a six-bar lower beater, plus a balanced wide-spread.

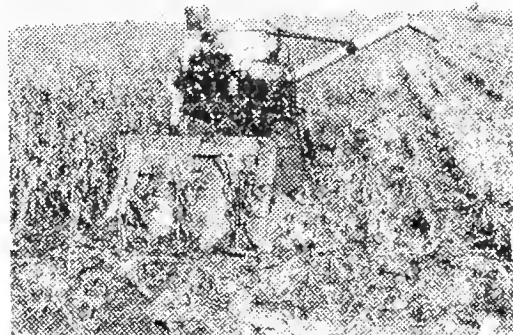
The feed conveyor has extra strong chains to carry up to 6 ton loads. There are five unloading speeds and a cleanout position, all controlled from the tractor seat by a polyethylene rope.

The CASWELL MANUFACTURING COMPANY of Cherokee, Iowa, has leased more than 10,000 Farro-Crates to some 600 hog raisers in the Midwest. This item includes the farrowing unit, gate, and panel. The retail price of the unit has been \$63 plus sales tax; the annual lease payment is \$12.98. One argument presented in favor of leasing is that payments are fully tax deductible as an operating expense, in contrast to purchased equipment which must be depreciated over a period of years.

The Underwriters' Laboratories have officially recognized the safety of the HoL-DeM Thunderbird Fencer produced by the HOL-DEM ELECTRIC FENCER CO., Minneapolis 24, Minn. This new fencer uses the stroboshoock principle to produce an intermittent shock many times more powerful than even the shocks of "unapproved" fencers, but of such short duration that no safety hazard or fire hazard is created. Since the UL label is widely accepted by safety authorities and insurance companies, farmers may henceforth use a powerful and effective fencer without compromising on safety.



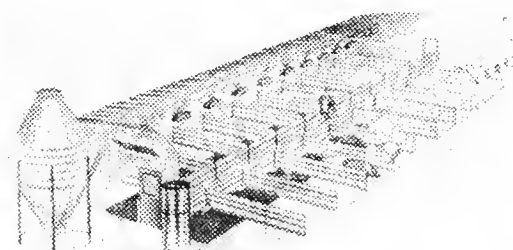
A new chain saw, especially designed to meet the varied needs of farmers, is now being offered by LOMBARD INDUSTRIES of Ashland, Massachusetts. The new F-54 is reported to be the only chain saw with Unitized Construction, making it the "lightest heavy-duty" saw available. It incorporates most of the features of heavier, more costly saws, combined with a new 4.7 cu. in. engine, and was developed for such jobs as fence post cutting, land clearing, stump removal, and tree trimming. The exclusive Lombard Versamatic Clutch is used on the new F-54. This is the only self-energizing clutch in which bearing surface improves with use, ensuring longer life and smoother action.



The first three-row corn head ever offered by the farm equipment industry is now available from ALLIS-CHALMERS, Milwaukee, Wisconsin. Designed for the Model A Gleaner self-propelled combine, the Allis-Chalmers three-row corn head is built on 30-inch centers to accommodate row spacings from 28 to 32 inches. It has an overall width for shipping of 7'7" and when in operation, 9'1" outside the wheel shields. It has positive, aggressive snapping rolls, each with bolted on replaceable hardened steel blades. Two adjustable stripper plates per row located on snapping rolls reduce shelling loss. Corn is delivered to the center feeder beater by two cross augers and is then diverted to the cylinder. Hinged dividers afford smooth pick-up and save more down corn.

Made of genuine Du Pont Neoprene, a new protective coating for rubber, tires, ignition wires, radiator hoses, and battery terminals is now obtainable from NEOPRENE TIRE SHIELD, P.O. Box 276, San Dimas, California. The coating is applied with a brush and air-dries in 15 minutes to a tough, permanently flexible shield. The manufacturer claims that neoprene resists salts, minerals, rust, corrosion, and many acids, and is not affected by immersion in water or exposure to ozone.

An improved clear vinyl film for economical greenhouse construction has been developed by UNION CARBIDE PLASTICS COMPANY, New York, N.Y. This new material, KRENE Vinyl Film KDAA-2244, outperforms and outlasts both polyethylene and conventional vinyls in resistance to ultra-violet radiation and mildew-causing fungi. KDAA-2244 contains a special ultra violet absorber and is designed primarily for Southern or relatively mild climates. For colder climate applications, Union Carbide Plastics Company offers its KRENE Vinyl Film KDAA-2344, in use by one greenhouse proprietor for more than four years with no deterioration.



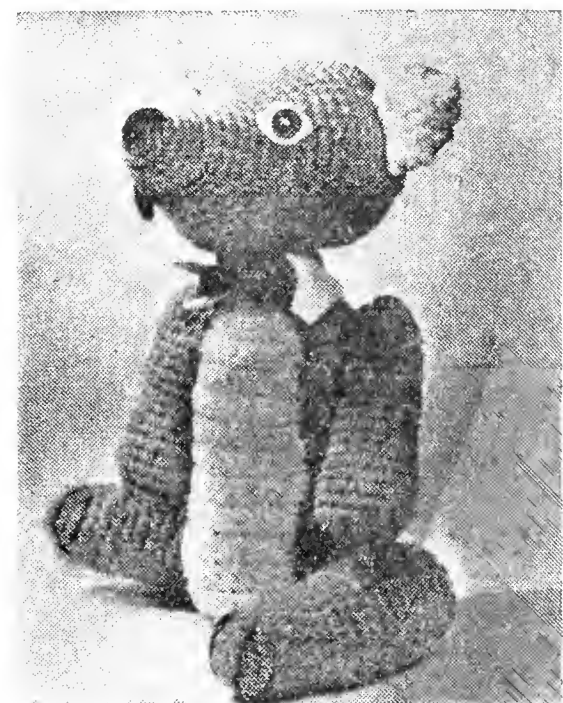
Confinement pork production systems designed for any of three basic swine operations have been introduced as package units by BEHLEN MANUFACTURING COMPANY, Columbus, Nebraska. The "pork factories," as they are called, are available as either finishing houses, farrow-to-finish units and gestation-to-finish units. They feature floor level ventilation, automatic feeding and manure disposal, and maximum use of floor space for different sized animals in the feeding cycle.

The buildings for each of the systems are constructed from prefabricated steel panels. All models are 32' wide and are available in standard lengths 62' and longer.

Needle Work

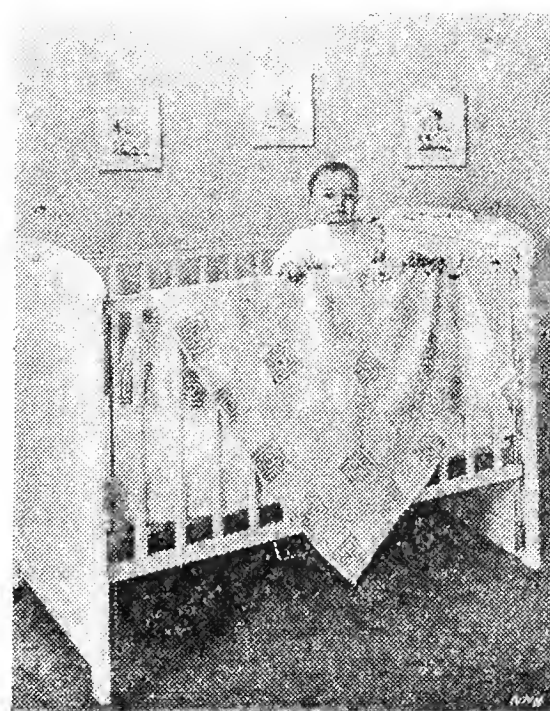


Cardigan PK—7315. Dainty sweater to complement your fall and winter outfits. Knitted in delicate "leaf" stitch. Instruction leaflet 10 cents.



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Instruction leaflet 10 cents.

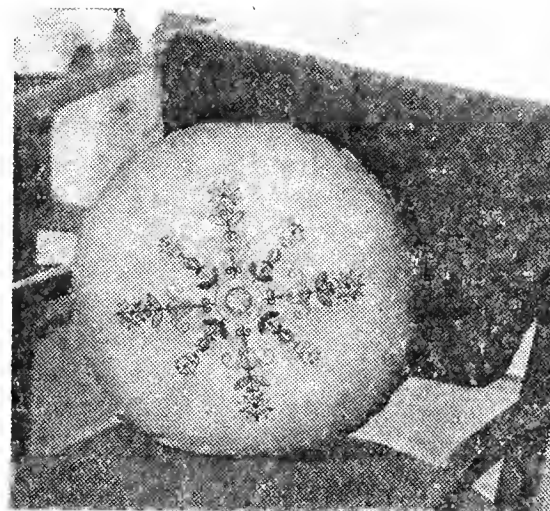


Crib Blanket C—123. The "master of the house" wants you to admire his new blanket! Squares crocheted separately and then sewn together.

Instruction leaflet 10 cents.

Hat and Scarf PC—1066. A twosome with no when-to-wear limitations. Keeps you as warm as toast and so easy to crochet.

Instruction leaflet 10 cents.



Pillow PE—1921. Dramatize chair or sofa with this elegant example of crewel embroidery. Lovely in both modern and traditional settings.

Instruction leaflet 10 cents.

Mrs. Augusta Chapman, Home Editor
American Agriculturist
Box 367
Ithaca, New York

Please send me the following leaflets (check ones wanted):

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Pillow PE-1921 _____

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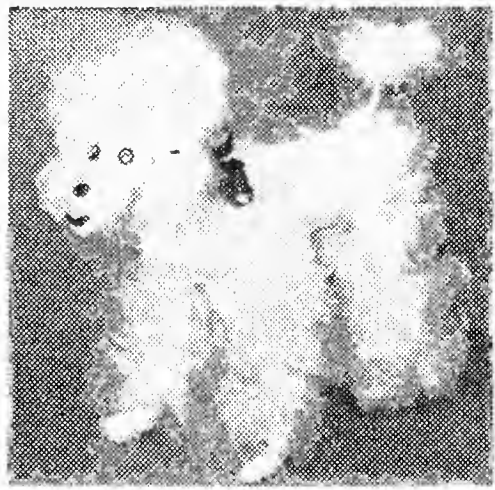
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NOVEMBER GARDENING

By NENETZIN R. WHITE



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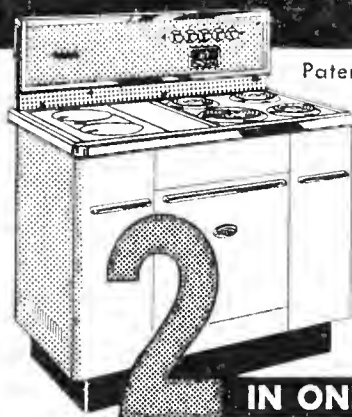
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No Nagging Backache Means a Good Night's Sleep

Nagging backache, headache, or muscular aches and pains may come on with over-exertion, emotional upsets or day to day stress and strain. And folks who eat and drink unwisely sometimes suffer mild bladder irritation... with that restless, uncomfortable feeling.

If you are miserable and worn out because of these discomforts, Doan's Pills often help by their pain relieving action, by their soothing effect to ease bladder irritation, and by their mild diuretic action through the kidneys—tending to increase the output of the 15 miles of kidney tubes.

So if nagging backache makes you feel dragged-out, miserable... with restless, sleepless nights... don't wait... try Doan's Pills... get the same happy relief millions have enjoyed for over 60 years. For convenience, ask for the large size. Get Doan's Pills today!

FALL COLOR in your garden can be just as beautiful in its way as spring's lush growth. Many of our ornamental trees and shrubs, such as the Dogwoods, all the Viburnums, Azaleas, and the Oregon Grape Holly, are now dotted in autumn's finery. And in the fall, Forsythia has a delightful purple hue that is wonderful with the reds, oranges, and yellows. Also, several varieties of shrub Euonymus' foliage turn a brilliant, very different red-pink in the fall, and its fruit has a pink cap, like bittersweet.

Many of the fruiting shrubs and vines last well into the winter. One of our most prolific is Firethorn (pyracantha), which is often literally covered with red-orange berries. When you see a breath-taking, large splash of fruit on a vine or shrub (it grows either way), I'll bet that it is a lovely Firethorn. Then, there's Mountain Ash, a small tree grown for its graceful foliage, white spring flowers, and fiery red-orange berries in the fall.

Reader Writes

A reader from Moravia, New York, recently wrote, "I would so much like you to identify for me a tree that I see in various areas. It grows quite tall and branchy, has leaves like a Sumac, and right now is beautiful with large pendant clusters of rusty colored seeds, like the blooms on a tree-type Hydrangea. Is it a desirable tree for our dooryards?"

I am going to give you my complete answer because I, too, love this tree, even though some people consider it a weed tree.

"The tree you describe is undoubtedly Ailanthus glandulosa. It is variously called "Tree of Heaven," Chinese Sumac," "Paradise Tree" or "Heavenwood." It will grow to 60 feet and is widely planted in industrial areas because it is very hardy, tough, and resistant to poor soil, smoke and poisoned fumes. It is a very rapid grower and can make a good shade tree.

"Its seed clusters are most interesting and very showy in the fall, as you have observed. It is a desirable tree for the lawn, the main objection to it being it suckers and seeds freely. The suckers have to be removed, of course. The tree has naturalized itself, due to its heavy seed production, all over the Northeast.

"Ailanthus wood is satin-like when finished, and is highly prized as a cabinet wood. This is the tree about which the best seller, 'A Tree Grows in Brooklyn,' was written."

All the Viburnum family has wonderful fall color, with fruit from red through blue and purple, to almost black. Shrub roses such as Rugosa have large showy hips (fruit) that are delightful on the plant and different and pretty in flower arrangements.

At any time, I will be glad to try and identify plants for you. It is usually wise to enclose a dried branch with the flower or fruit. Press these between paper towels with a weight, and then mail. Don't wrap in waxed paper or foil, for they mold beyond recognition.

Mulches

As soon as the ground freezes, mulches are in order. All plantings will benefit from a mulch, but one is most important for new plantings of perennials, bulbs, ground covers

and small material. These mulches are not to keep the plant warm (as I have said before), but are to prevent the ground from alternately freezing and thawing, exposing the roots to drying winds and freezing temperatures, and eventually killing the plant. This explains why we frequently find that a plant is only semi-hardy in central New York and completely hardy at Ottawa, Canada, or even further north. Canada has a nice heavy mulch of snow that stays all winter and melts gradually in the spring.

Any mulch material that will let air and moisture in is fine. Most leaves will not do this, as they pack down and form an impermeable layer. Peat moss (held in place by a few branches), straw, sawdust, wood chips, and shavings are acceptable mulches. If undecayed material such as sawdust is used, be sure to remove the mulch in the spring, or else add nitrogen to help it break down. If you don't, the undecayed material will rob nitrogen from the soil and eventually the plants will become chlorotic or yellow and sick.

Roses, particularly Hybrid Teas, should have some protection in the Northeast. Rose fanciers usually mound each plant with a mixture of peat moss and soil. The tops may be cut back slightly to improve their appearance, but not too severely, or frost can enter the canes and kill the plant.

Fall Planting

You can plant successfully until the ground freezes. It could still be done after the ground has frozen except that it's inconvenient and messy. When we move large shade trees with a frozen ball of earth, the hole is dug first, or the ground is kept thawed with a mound of peat or straw. Fall planting is unusually successful except for a few plants that like spring transplanting only. The reason for this is that your plant has only to make root growth in the fall, whereas in the spring it must put out roots and top growth at the same time.

So don't be hesitant—plant away all fall, and mow your lawn late so grass won't go into the winter lying down.

HOME WORKSHOP



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NEW FASHIONS TO SEW

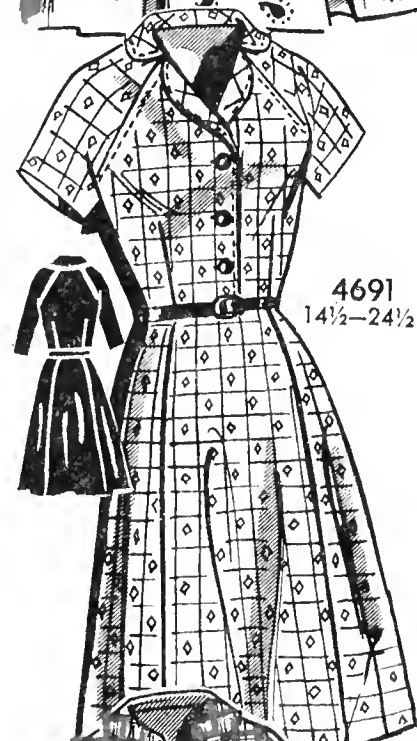
9106. Jiffy-cut apron or tunic top. Pop it over dresses, sportswear. Printed pattern in Misses' Sizes 10-20. Medium Size (14-16) takes 2½ yards 35-inch fabric. 35 cents.

4942. Youthful "skimmer" with trio of kick pleats. Printed pattern in Teen Sizes 10-16. Size 12 takes 2¾ yards 39-inch fabric. 35 cents.

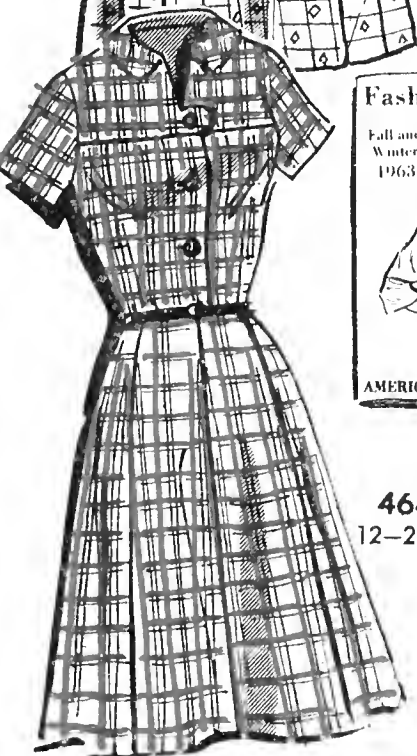
4621. Notched cape collar tops this half-size dress. Skirt has graceful inverted pleats. Printed pattern in Sizes 14½-24½. Size 16½ takes 4¾ yards 39-inch fabric. 35 cents.



4621
14½-24½



4691
14½-24½



4642
12-20, 40



Jiffy Cut
9093
ONE SIZE
MEDIUM

4832
WAIST
29", 31"
33", 35"
37½", 40"
42½"

9093. Aprons for Christmas gifts. Make these of remnants; trim with binding, rick-rack, ruffles. Each takes 1 yard 35-inch fabric. Medium size ONLY. 35 cents.

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4691. Six-gore shirtdress for busy fall days. Raglan sleeves, smart collar. Printed pattern in Half Sizes 14½-24½. Size 16½ takes 3¾ yards 35-inch fabric. 35 cents.

4642. Tiny open collar, yoke and tab set off this gore-skirted casual. Printed pattern in Misses' Sizes 12-20; 40. Size 16 takes 3½ yards 39-inch fabric. 35 cents.

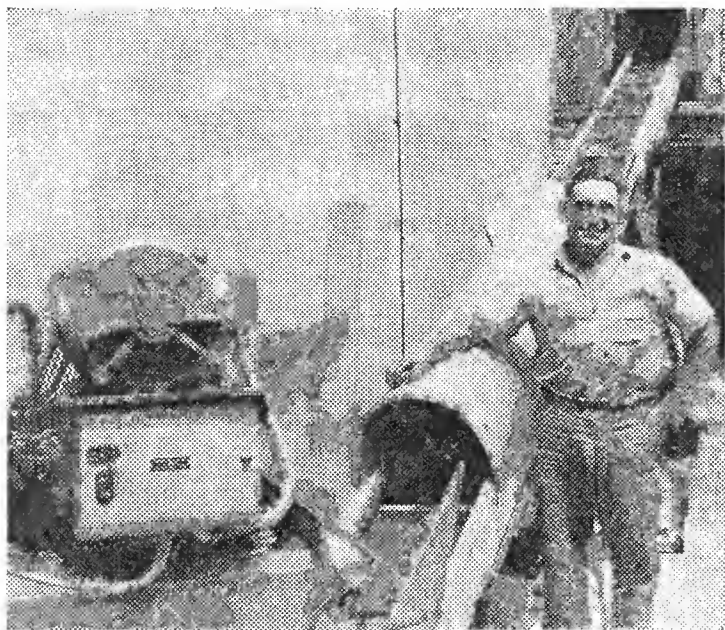
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Mark Jensen looking at some top quality haylage.

They Like Haylage

By Hugh Cosline



Fred Lewis of Prattsburg, N. Y.

WHEN MARK Jensen flipped the unloader switch to show me some "haylage," the cows that had been chewing their cuds under a nearby tree came running. They may have been a bit surprised that the rumble came so soon after the morning feeding, but their eagerness was mute testimony to the palatability of the silo's contents.

Mark is the man who spends most of his time looking after 80 producing Guernseys, plus young stock, on Gage Robson's farm near Geneva, New York. The cows make up about half the farm business, with 400 acres of cash crops providing the other half.

The farm has three silos, the oldest being of concrete stave 14' x 50', the other two airtight of glass-lined steel, one 20' x 50' and the other 20' x 60'.

Some Opinions

Between comments by Mark Jensen and Gage Robson I learned these opinions:

1. Putting up "haylage", which might be described as half-cured hay, speeds the job of harvesting hay.

Rain represents no problem: there is no lifting; it takes the gamble out of haying. Enough haylage can be put up in a week to last the herd all summer, and they think that beats greenchopping for the herd every day.

2. The cows like haylage, and milk production is excellent. During dry weather in July production in the Robson herd was up when most herds were shrinking.

3. It's easy to feed in the automatic bunk.

4. There's no waste.

5. They get excellent use from the silos. Because they unload from the bottom, they can be filled any time with hay, corn, or oats, and continue feeding. Each silo is filled at least twice each year to make a total put up of around 1,000 tons.

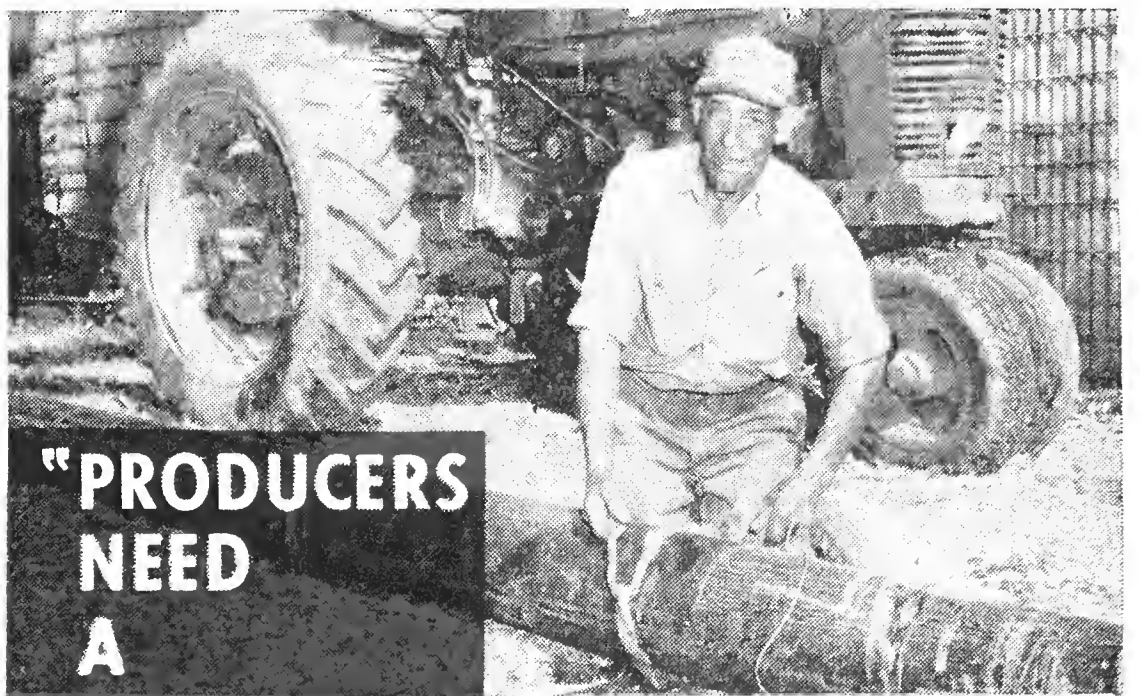
6. Because it can be cut early, haylage is high in protein. As grain Gage feeds ground ear corn to which only two bags of high protein supplement is added per ton.

7. It's no problem to get enough feed into the cows, because haylage is 35 to 50 percent moisture, much

(Continued on Page 49)



Gerald Coombs believes good roughage pays off here—in the bulk tank.



"PRODUCERS NEED A UNITED VOICE."

After filling one of his 50x20 silos, Martin G. Beck of Freeville, N. Y. gets ready to raise the blower pipe to another silo. He and his son Ronald operate an 87 cow dairy.

says dairyman Martin Beck of Freeville, N. Y. "Frankly, I can't see being an independent producer. He has the same problems I have and the only effective way we can bargain is to do it together." Beck, an active member of Gracie Dairy Cooperative Association adds, "Technical specialists and information provided by the Bargaining Agency are needed to see the overall picture in marketing. The independent producer or small cooperative can't get this help alone." You are part of a united voice on milk marketing problems when you belong to a cooperative which is a part of



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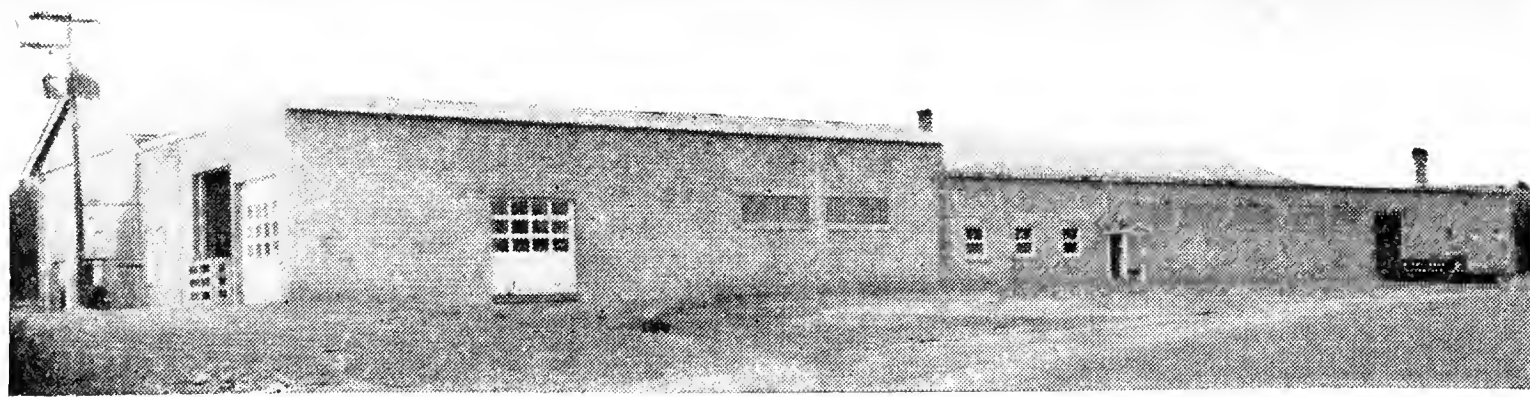


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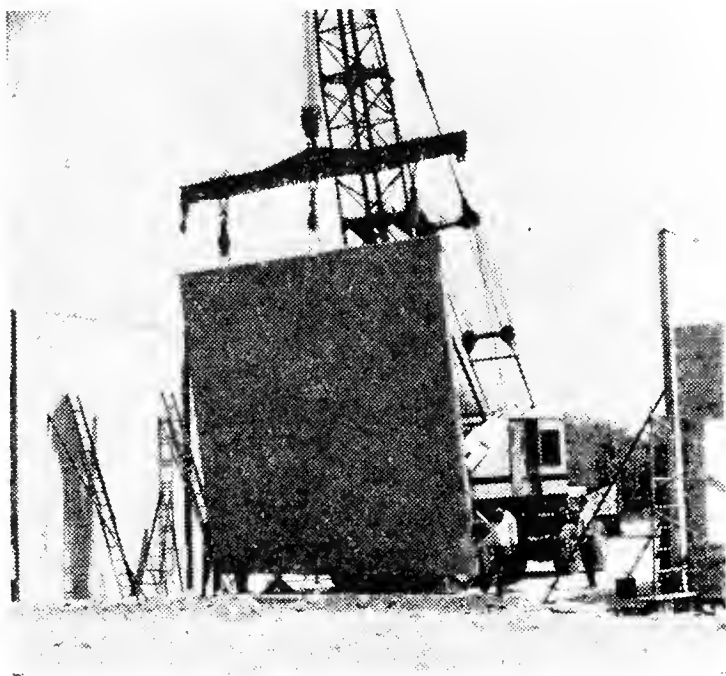
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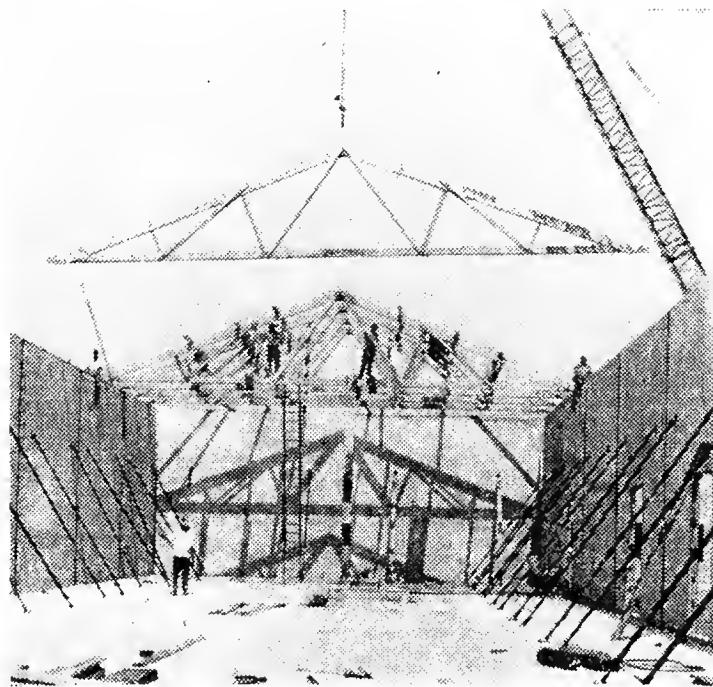
The completed building. The corner nearest is the loading zone.

MODERN APPLE STORAGE IN THE CHAMPLAIN VALLEY

By RAY BENDER*



Tilting a wall panel with 45-ton crane.



Roof trusses being elevated into place.

WHEN DR. A. B. BURRELL, retired Cornell professor of plant pathology, decided to build an apple storage on his farm at Peru, New York, he first visited storages of other growers, and also discussed them with engineers and others who had had experience with them. Then he drew preliminary scale sketches (and modified these).

In late April and early May contracts were let, and the work started. The building is really two in one—an 80,000-bushel apple cold storage and a packing room and loading zone adjacent to it. In both the floor space is about equal—230 feet long and 45 feet wide.

The storage area consists of five rooms. Four of them are identical 14,000-bushel controlled-atmosphere rooms, and one is a 24,000-bushel regular storage room. The machinery room is in one corner of the loading zone and has one truckbed-height loading door and two drive-in truck doors. The packing area includes offices, toilets and a lunch room.

The site was drained by an intercepting tile line. The storage part of the building is made of tilt-up concrete panels. In this type of construction the building rests on piers, not on a continuous foundation. The piers that support the storage are four feet square and five feet below the grade; those that support part of the packing and loading area are five feet square. Both are reinforced, top and bottom, with half-inch or larger rods welded together at right angles to form a mat. In addition, four, five or six $\frac{3}{4}$ " rods extend 18" in and 18" out of the pier to attach to the pilaster reinforcing. The corner piers had five rods, other outside wall piers four, and the inside wall piers had six rods.

When the piers were finished a reinforced concrete beam 7" wide and 8" deep was poured $3\frac{1}{2}$ " below the top of the finished subfloor. This is not usual, but was planned to hold the fill, and permit pouring the subfloor all the way to the outside edge. After the piers were poured, gravel fill was drawn in and compacted, and a 4" subfloor laid. A screeding and vibrating machine speeded up this operation.

The surface of the subfloor was floated and troweled, and subfloor forms were laid on this for the wall panels. The panels varied from 18' 9" to 20' 8" wide, and were 21' high and 6" thick. To make the panels strong enough to lift, half-inch rods were placed 12" apart both ways, held in the center of the panel by aluminum "chairs." Four double pick-up sockets were welded to the steel reinforcing for each panel; the horizontal rods extended beyond the edge of the panel.

A 45-Ton Crane Needed

Before the panels were poured several coats of bond breaker were applied to the surface of the subfloor to prevent the panels from sticking. A few panels were poured one on top of the other, with bond breaker between them. A 45-ton crane was needed to pick up and move these 17-ton panels, all 26 of which were set in place and braced by 3 p.m. of the third day of the raising operation.

As soon as the panels were up, the pre-cut wooden trusses, held together by bolts and ring connectors, were elevated and bolted to a wooden top plate, which had been previously bolted to the panel tops. The trusses were spaced 8' on center, and had a rise of 9' in a 46'8" run. Next, pilaster steel was welded to the steel rods embedded in the piers, pilasters were poured joining the panels, and the horizontal rods at one end of each panel were wrapped with plastic so that they float in the pilaster, making an expansion joint.

While this construction was going on, the packing area was also being built. Footings were five feet below grade, and reinforced with two continuous $\frac{5}{8}$ " rods. Ten-inch concrete block was used to two courses above grade, and Norlite, one of the lightweight aggregate blocks, above. Cross walls in the storage and pack area are 10" Norlite; other partitions 8". All block walls were reinforced and tied into the pilasters whenever possible. Seven glass-block areas were installed for light, in addition to that coming through the glass in the four overhead doors. Besides the cross walls and partitions, inside pilasters were used to strengthen the block walls. Of course, all door and window lintels

had reinforcing steel in them, and the top floor of the storage and pack area is reinforced with steel mesh.

Insulation

The roof over the storage is 24" galvanized Ceeo roll with a white baked-on enamel finish. This is nailed at the edges every three inches to 2 x 8 inch rafters spaced 2' on center. No roof boards are used. The roof over the pack area is a metal deck over bar joists spaced 4' on center; over the metal deck are 2" of Fesco board for insulation, and a four-ply built-up roof with a 20-year guarantee.

Insulation of the storage rooms is provided by 4" of styrofoam on the side walls, and 2" in the floor. The ceiling is insulated with two 3" layers of glass wool batts, and the gable ends and eaves of the storage area are ventilated.

The four controlled-atmosphere rooms were lined with 2-ounce coated galvanized iron, attached to nailing strips set into the insulation and pressure-treated with pentachlorophenol. The joints of the metal are butted and covered with galvanized channels and caulked. The metal lining extends under the edge of the top floor. Between the floor and subfloor are two layers of asphalt felt, hot-mopped with three layers of asphalt.

Drains were located under the floor, located in 2" deep depressions to catch the condensation drop from the tanks and pumps outside the storage rooms. In case it should ever become desirable to do so, a large part of the wall between the pack area and the loading zone can be removed without weakening the building.

Refrigeration is provided by three ammonia compressors, fifty, twenty-five and twenty horsepower. The room diffusers are not equipped with air ducts but with distributor heads; the large evaporative condenser outside the machinery room drains back by gravity to an inside tank.

Lightning protection is provided by 33 roof points, properly grounded, as is the reinforcing steel in the panels and the roof deck and steel door bucks.

Other Apple Storages

There are other apple cold storages in Clinton and Essex counties. In Clinton County itself, in addition to this new plant at the Burrell Orchards, are the storages of Chazy Orchards at Chazy; Stephen Pytlak and John Banker at Plattsburgh; Silas Clark; Forrence Orchards; Champlain Valley Apple Storage; and Northern Orchard Company, all at Peru. In Essex County one can find the A. F. Gunnison Orchards at Crown Point; the Johnson Orchards at Ticonderoga; and just over the line in Washington County is the storage of Frank Sears.

Facilities like these help the growers to market their crops more effectively, provide local employment in sorting and packing for eight months of the year, and in addition, benefit the consumer by providing a more uniform flow of quality fruit.

* Former Essex County Agricultural Agent

THEY LIKE HAYLAGE

less than conventional grass silage, corn silage or greenchop.

Hill Country

I thanked all the boys on the Robson farm and hit the road for the farm of Frederick Lewis at Prattsburg. As I travelled south I soon left flat Ontario County and found myself in hill country.

Fred Lewis operates a farm with a man-and-a-third equivalent — the equivalent being some help from his wife and one of his five daughters! He milks about 30 cows and, although his situation is much different, is as enthusiastic about haylage as Gage Robson.

Fred has two silos, an old 14'x35' monolithic concrete silo still serviceable, and a relatively new 20' x 50' airtight silo. He plans for an automatic bunk feeder, but now the unloader empties into an elevator which carries the haylage to a mow above the stable, from which it comes by gravity into a silage cart in the stable.

Before he bought the glass-lined silo, Fred fed corn silage in summer from the concrete silo. "But it seemed that I was wasting about a third of the silage," Fred says. "Now, with haylage there's no waste at all."

Fred is much interested in reducing his bill for purchased grain. He has had the new silo for over a year. The year before he bought it his grain bill was around \$5,000. The next year, with haylage available for only six months, the bill was cut to around \$3,800.

Fred mows, crimps and windrows in one operation, then early in the season chops about a day and a half

later. He started the hay harvest last summer on June 7 and finished first cutting in 10 days.

Just one more comment from me. In case you get the wrong impression when I call this a hill farm, I'll mention that Fred's latest herd average is 13,200 pounds of milk!

Next we drove over to the farm of Gerald Coombs, a neighbor of Fred's. Incidentally, Gerald, Fred and another neighbor, John Breusky, pooled their equipment and manpower last summer to harvest their forage. Gerald has the most alfalfa, so his job was done first and finished June 17; John's job took five days; and Gerald's was finished by July 1.

Gerald has three airtight silos. The first one, bought six years ago, is 17' x 40', another bought in 1962 is 14' x 22' and intended to store high moisture shelled corn. The third, 20' x 60', was bought in the spring of 1963.

The labor-saving feature was emphasized by Gerald. "If I had to hay the old way, I'd quit farming."

MORE DATES

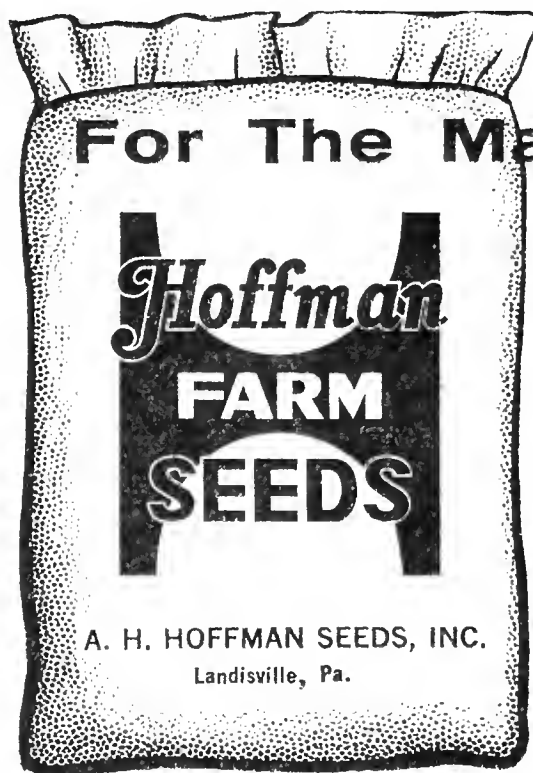
Nov. 11 — Annual meeting of Western New York Guernsey Breeders' Assn., Village Plaza Motel, Falconer, New York.

Nov. 11-13 — Annual meeting New York State Farm Bureau, Utica.

Nov. 11-15 — Seventh Annual Pennsylvania Livestock Exposition, State Farm Show Building, Harrisburg.

Dec. 3-4 — Poultry Servicemen's Clinic, Cornell University, Ithaca, New York.

Dec. 4-6 — New York Soil Conservation Districts Association Annual meeting, Sheraton Hotel, Rochester, New York.



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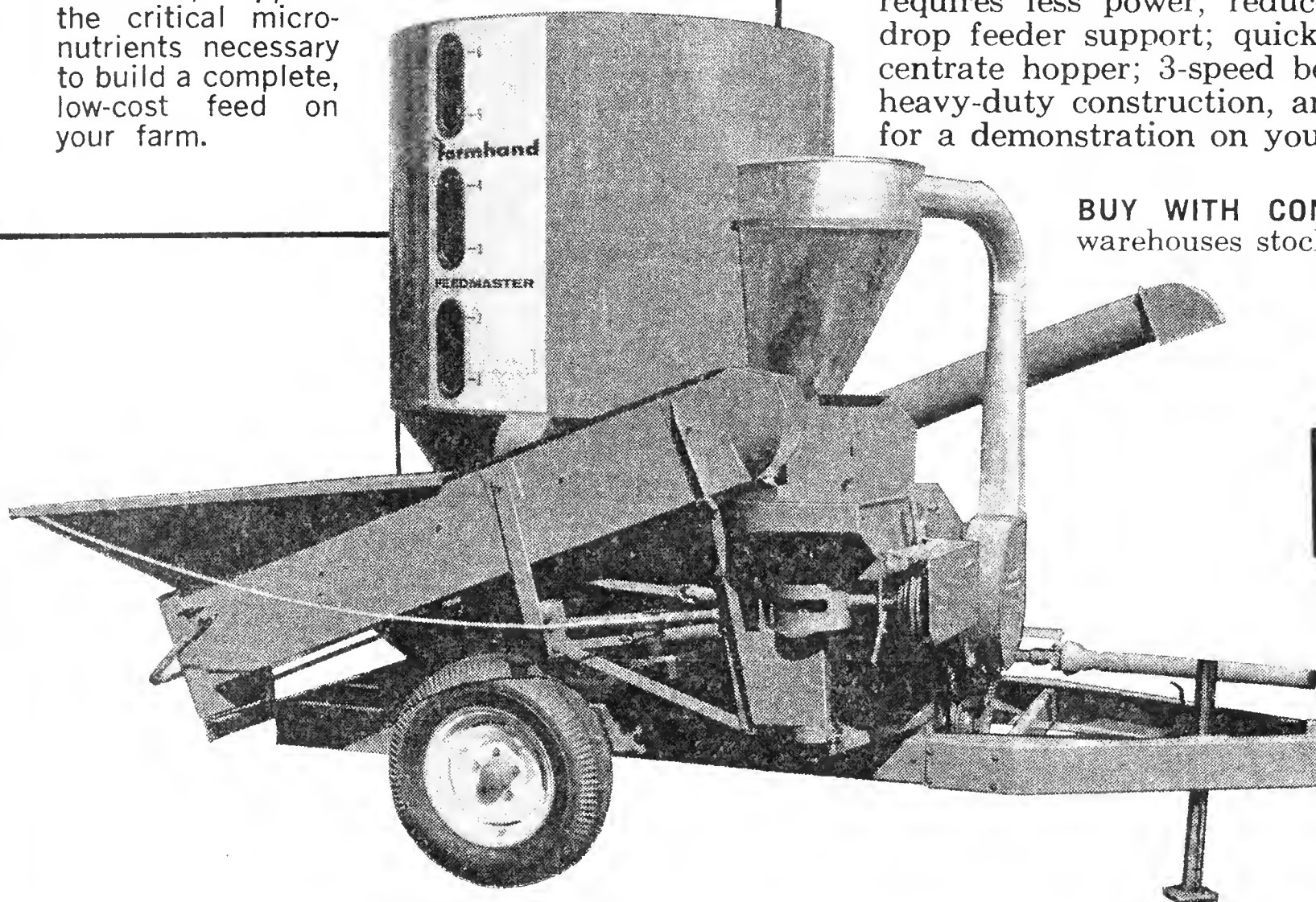


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ED EASTMAN'S PAGE



A Family Enterprise For 115 Years

IN MANY YEARS of writing and editing for farm folks it has been my privilege to visit many of the great plants that manufacture farm machinery and other farm supplies. I figured that if you couldn't visit these plants yourself, you might like to know about them. So the other day, Dr. Howard I. Dillingham, president of Ithaca College, and I drove to Seneca Falls, at the foot of Cayuga Lake, to visit Norman Gould and his great pump manufacturing plant.

Now maybe if, like me, when you were young you had to thaw out and prime a hand pump on a cold winter morning, you probably are not very enthusiastic about pumps. Do you remember that if you happened to grab the frosty pump handle when your hands were wet they would freeze fast? I had a young friend who put his tongue on a frosty pump handle; he didn't do that again! Nevertheless, the pitcher pump was a tremendous improvement over the dug well and the old oaken bucket, no matter how sweet and nostalgic the song by that name.

The chances are also that your struggles were with a Gould pump, for the name of Gould is almost synonymous with pump. Gould pumps have been used for three generations on almost every farm in America, and are famous nearly everywhere both on the farm and in industry. Just a couple of days before we visited the plant, Goulds had shipped three carloads of pumps to faraway India.

Norman Gould is one of my closest personal friends. I have known him for a good part of a lifetime, but he is such a modest, unassuming man that I never realized before how vast his plant is, and what a great operation he has built. The airplane picture on this page will give you some idea of what I mean.

Norm's business is of particular interest to all of us who want to preserve the true principle of free enterprise, because it has always been conducted on that principle, and he is emphatically opposed to government subsidies either in farming or other business. Says Norm: "When we ask government to do things we should do ourselves or in our organizations, we lose our freedom of action, and such help always costs more in the end than we get out of it."

Norm is proud of the fact that his business has always been a family affair. Norm's grandfather started to make pumps in 1848. In the 115 years since there have been but four presidents: Seabury S.

Gould, (the grandfather) who founded the company; James H. Gould, his son, who succeeded him in 1886; Seabury S. Gould, II, who took over the direction of the business upon the death of his older brother; and then his son, my friend Norm, who became president of the firm in 1908. Under the able guidance of the family, Gould Pumps has survived fire, flood, and economic pitfalls, and played a vital part in the business of the community, our country, and in industry.

Started Small

From the little shop which employed only about 30 men when it started, this plant—with its large buildings spread over many acres of land, now employs approximately 900 highly-skilled people, many of them trained mechanical engineers. And, of course, the use of the Gould pumps is not confined to pumping water in the home or on the farm; about half the sales come from other businesses such as the oil industry, which pumps oil for hundreds of miles.

Automation is taking over in the Gould plant as in every other business, both in the factory and on the farm. An example Norm mentioned is a new machine with which two men can now do more than ten men could only a short time ago.

As President Dillingham and I walked through some of the large shops, guided by Mr. W. B. Helene, advertising manager, I was impressed with Mr. Helene's intimate knowledge of all the complicated operations in the manufacture of pumps, from the smallest to the huge ones used in industry.



The Gould Pump Manufacturing plant at Seneca Falls, New York, an outstanding example of a family business based on integrity, service and free enterprise

Vividly recalled to me were the days in my youth when I worked in an iron foundry and helped to carry and pour the white-hot liquid iron used in making the castings for a manure spreader. I still carry a scar on my foot where it was struck by a spark of that boiling iron which made a casting as large as a nickel on my foot. As in everything else, foundry methods have changed, great cranes and automatic machines replacing most hand operations.

Basic

In visiting plants of great manufacturers and in my visits to successful farms, I am always interested in trying to determine the owner's philosophy. What makes him tick? Why are some successful while others fail? The basic reasons—no matter what the business—are always the same. Success in business is based on honesty, sincerity, education or a skill, personal responsibility, and hard work. Under Norm's leadership, his business has more than doubled in recent years. For this he gives great credit to his dedicated associates. Norm himself is a graduate of Cornell University, and although in his eighties he works every day, including Saturdays.

I asked Norm what he was in business for, and he replied that it had always been a Gould family ideal to make a better quality pump than anyone else could make, and one that would serve both farm and business—if not to keep wheels in motion at least to keep fluids of all kinds flowing.

WHAT'S YOUR STAGE?

The American Dairy Association, which is doing such a good job in advertising milk, lists the eleven life stages of man as follows:

1. Milk.
2. Milk and bread.
3. Milk, eggs, bread and spinach.
4. Bread and butter; all-day suckers, green apples.
5. Ice cream sodas and hot dogs.
6. Hamburgers, fried potatoes, coffee, apple pie.
7. Roast duck, creamed broccoli, fruit salad, demitasse.
8. Pate de foie gras, wiener-schnitzel, Roquefort cheese.
9. Milk, toast, soft boiled eggs.
10. Crackers and milk.
11. Milk.

HIS LAST GIFT

Just a few days before the late Curry Weatherby — my lifelong friend and co-worker—died, he gave me this little poem. It was written by Arthur James Hayden:

If nobody smiled, and nobody cared,
And nobody helped us along;
If every fellow looked out for himself,
And the good things all went to the strong;
If nobody cared just a little for you,
And nobody thought about me,
And we stood all alone in the battle of life,
What a dreary old world this would be!

Life is sweet because of the friends we love,
And the things that in common we share;
And we want to live on, not because of ourselves,
But because of the people who care;
It's giving and doing for somebody else—
On that all of life's splendor depends;
And the joy in this world, when you've summed it all up,
Is found in the love of our friends.

JOURNEY TO DAY BEFORE YESTERDAY

Since I first started writing books, way back in the early 1920's (mostly for publication serially in *American Agriculturist*), I have written 14, including six little volumes of *Eastman's Chestnuts*. I feel that I have been very fortunate indeed because you readers have liked my books, indicated by the fact that you have bought them and have written me many enthusiastic letters about them.

Now, published by the great book company, Prentice-Hall, just off the press this November is my latest, and in my opinion by far the best book, *JOURNEY TO DAY BEFORE YESTERDAY*, in which I take you on a guided tour to those simple, uncomplicated, mostly happy hours of the horse and buggy days of my youth.

If you are over 40 you will surely enjoy this journey, but will be glad that you have a return ticket back to now. If you are under 40, you will like very much to go in order to find out what the world was like when Grandpa and Grandma were young.

Without being over-confident I can promise you a grand trip at very little cost. For the itinerary and details of the tour, see page 39.

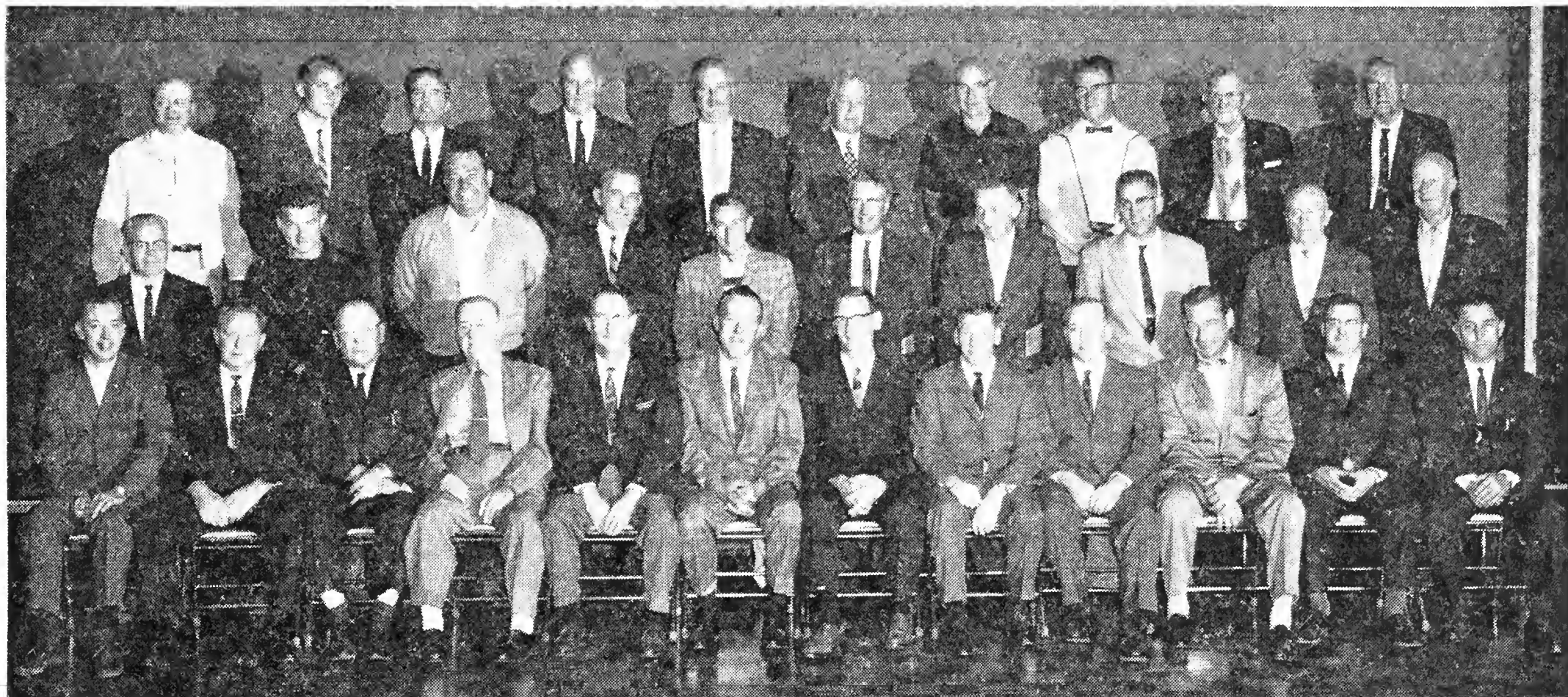
EASTMAN'S CHESTNUT

My friend, Kenneth L. Lamb, principal of the high school at Henderson, New York, tells this one.

A little boy prayed for \$100. After several weeks with no results, he decided to put his request in writing. The Post Office Department—uncertain as to what to do with the letter—finally sent it to the President. The latter got a chuckle out of it and directed that \$5 be sent to the boy. The youngster, delighted that his request had been granted at least in part, felt that he should write a thank you letter to God. He did, and added this postscript:

"It's too bad that your present was sent through Washington. As usual, the pollatishuns down there took out all but \$5 of the hunderd."

Dedicated to Personal Service



Here are some of the men who bring North American protection to farm families throughout the Northeast. Your own North American representative is probably here. Taken at a recent meeting in Syracuse, N. Y., from left to right: first row—Don Russell, Frank Pine, Eston Reed, Lige Ennis, Harry Ennis, Ray Ennis, Ed Weatherby, Dave Weatherby, Jack Weatherby, George Ellingham, Claire Reynolds, Bernard Virkler. Second row—Francis Davis, Bill Bishop, Rod Gui-

chard, Jack Murray, Len DeFrancisco, Kirby Lewis, Bill Gaines, Jerry Taylor, Charlie Dayton, Jim Noel. Third row—Ellis Smith, Ray McGuirl, Ray Saddlemire, Harry Watrous, Lock Norton, Charlie Caulkins, Earl Pattison, Floyd Wyman, Tom Gregg, Ben Turner. Not pictured are—LaVerne Storum, Schuyler Mondore, Dean Tuttle and in New England George Brown, Charles Catlin, Harold Fohlin, Ed Melby, Archer Pat-ten, Ralph Powers, Emerson Shedd, Roy Thompson.

During the past twelve months over seven thousand claims have been paid to folks served by these dedicated men. The hundreds of thousands of dollars in benefits have helped maintain strong stable farm families during periods of personal loss due to accidents and sicknesses. With combinations of up to date policies, North American continues to provide excellent protection at low costs—protection which is always backed with personal service.

The North American Company joins the farmers of the Northeast in paying tribute to the concepts of free enterprise and personal initiative which have done so much to make America great. Like the farmer he serves, the insurance agent values the freedom which is vital to his way of life. Working together the farmer and the insurance agent are effectively contributing to the stability and progress of the American economy.



NORTH AMERICAN ACCIDENT INSURANCE COMPANY

(In New York State)

THE NORTH AMERICAN COMPANY

FOR LIFE, ACCIDENT & HEALTH INSURANCE (In Other States)

GENERAL OFFICES: CHICAGO, ILLINOIS

better spreader

100 shredding teeth... new paddle design. Result? Finer shredding, wider spreading. Bold ideas from New Idea.

Let farmers talk about spreaders and here's what they ask for. One that will shred finer, spread wider, last longer. One that'll take big chunks of hard-packed manure in stride. Now see why so many more farmers rely on a New Idea to fill the bill.

Finer shredding: With New Idea, 100 triple staggered teeth on a 4-bar upper cylinder and a 6-bar lower cylinder give finer shredding. Cleans itself, too.

Wider spreading: Newly-designed distributor paddles lay down controlled, uniform pattern because they are stronger, heavier,

with serrated edges. They dig in, slice deep, spread wide.

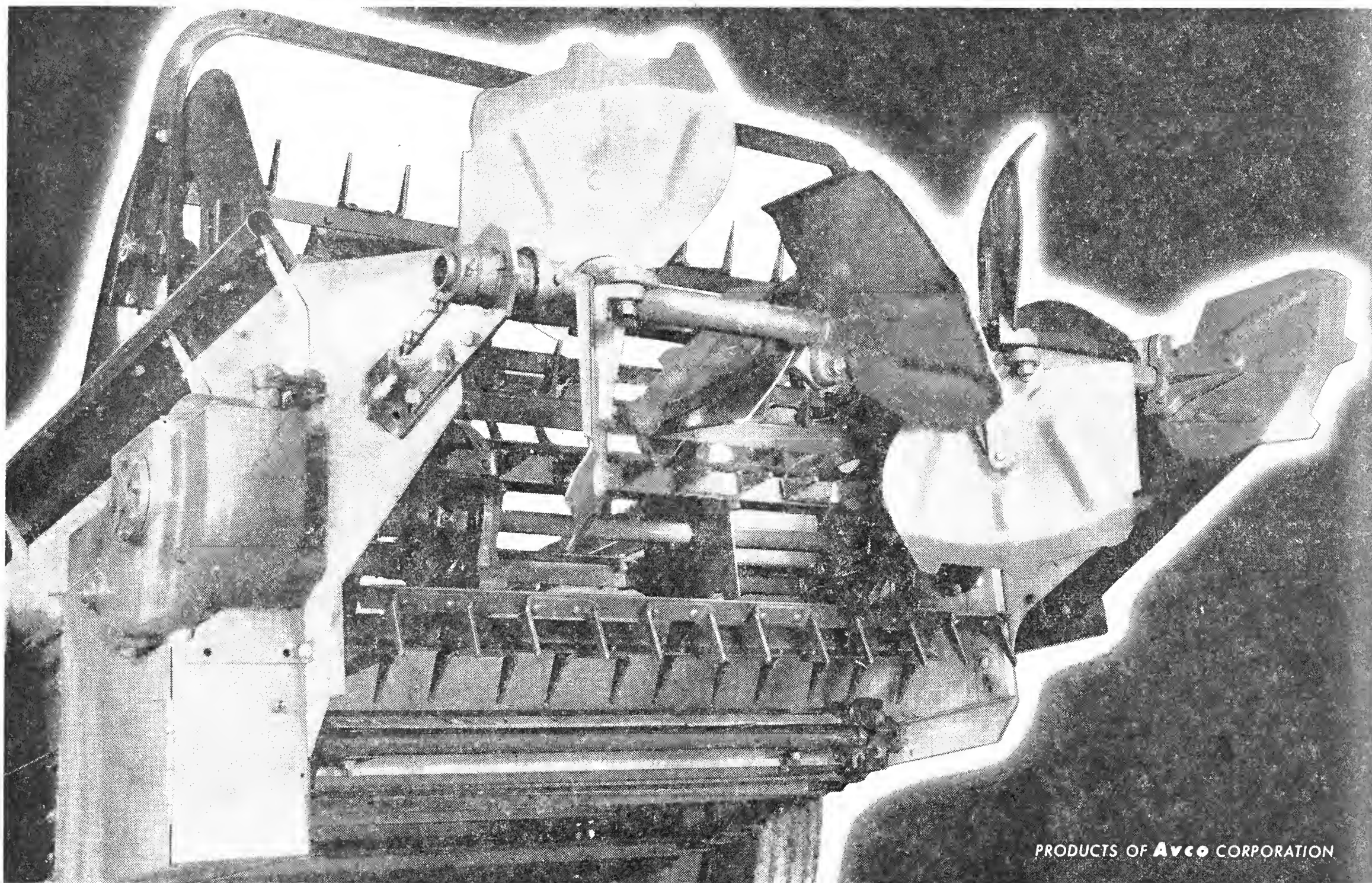
Longer lasting: Check 'em off of this partial list: Penta-treated box, heavy-gauge steel flares, welded "A" frame hitch on all PTO models, hot sprayed paint, optional endgate. And all New Idea spreaders have a full year written guarantee.

Lots of our bold ideas are taken for granted; and they should be. But when you shop for a spreader, don't think these features are in all makes. See for yourself at your nearby New Idea dealers. New Idea, Coldwater, Ohio...

*the sign of a
Good Dealer*

NEW IDEA

where bold new ideas pay off for profit-minded farmers

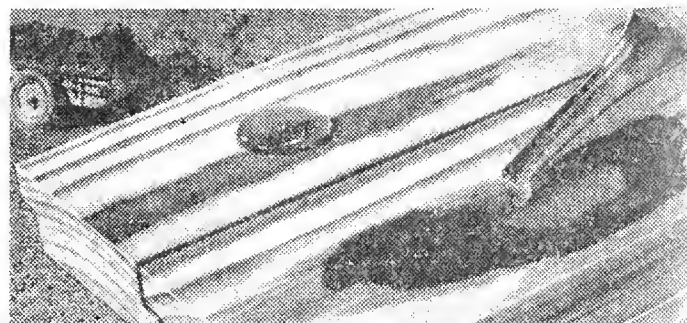
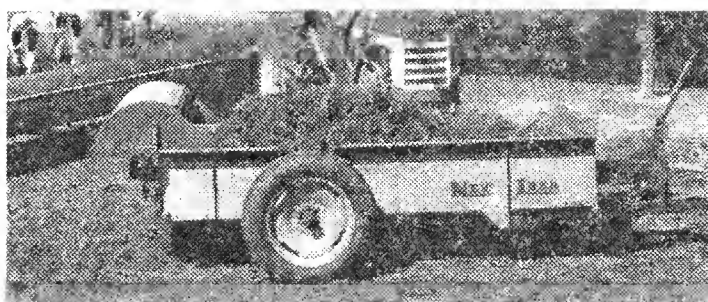
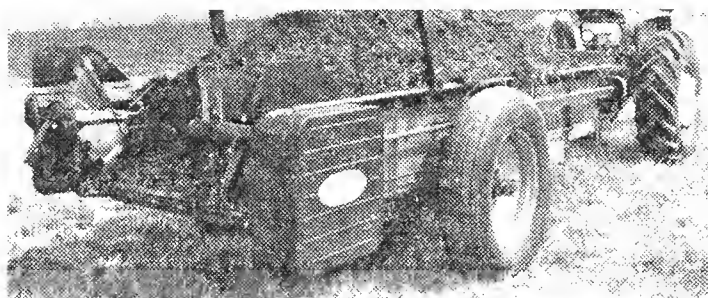


PRODUCTS OF **Avco** CORPORATION

TOP DRESS OR SPREAD HEAVY. New Idea chunk busters spread manure evenly in a uniform pattern to protect tender plants, and to provide even, healthy growth. For more profitable soil building... for more economy of handling... and for an all-round better spreader... See your New Idea dealer now.

TYPE YOU WANT; SIZE YOU NEED. World's most complete line now includes 125 and 155-bushel Single Beater spreaders; 130 and 160-bushel Flail spreaders; 125, 145 and 180-bushel Cylinder/Paddle PTO's; and 70, 75 (4-wheel) and 95-bushel Cylinder/Paddle ground driven.

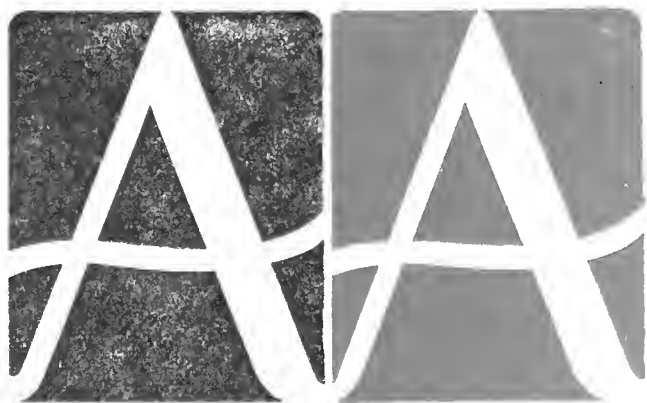
LONG LASTING. Clear, yellow pine boards make up the sides and bottoms of every New Idea spreader box. They're treated with water repellent Penta preservative — then sprayed, tops, bottoms and sides, with hot paint for added protection.



FULL YEAR WRITTEN GUARANTEE

Every New Idea spreader has this exclusive buyer benefit!

DECEMBER 1963



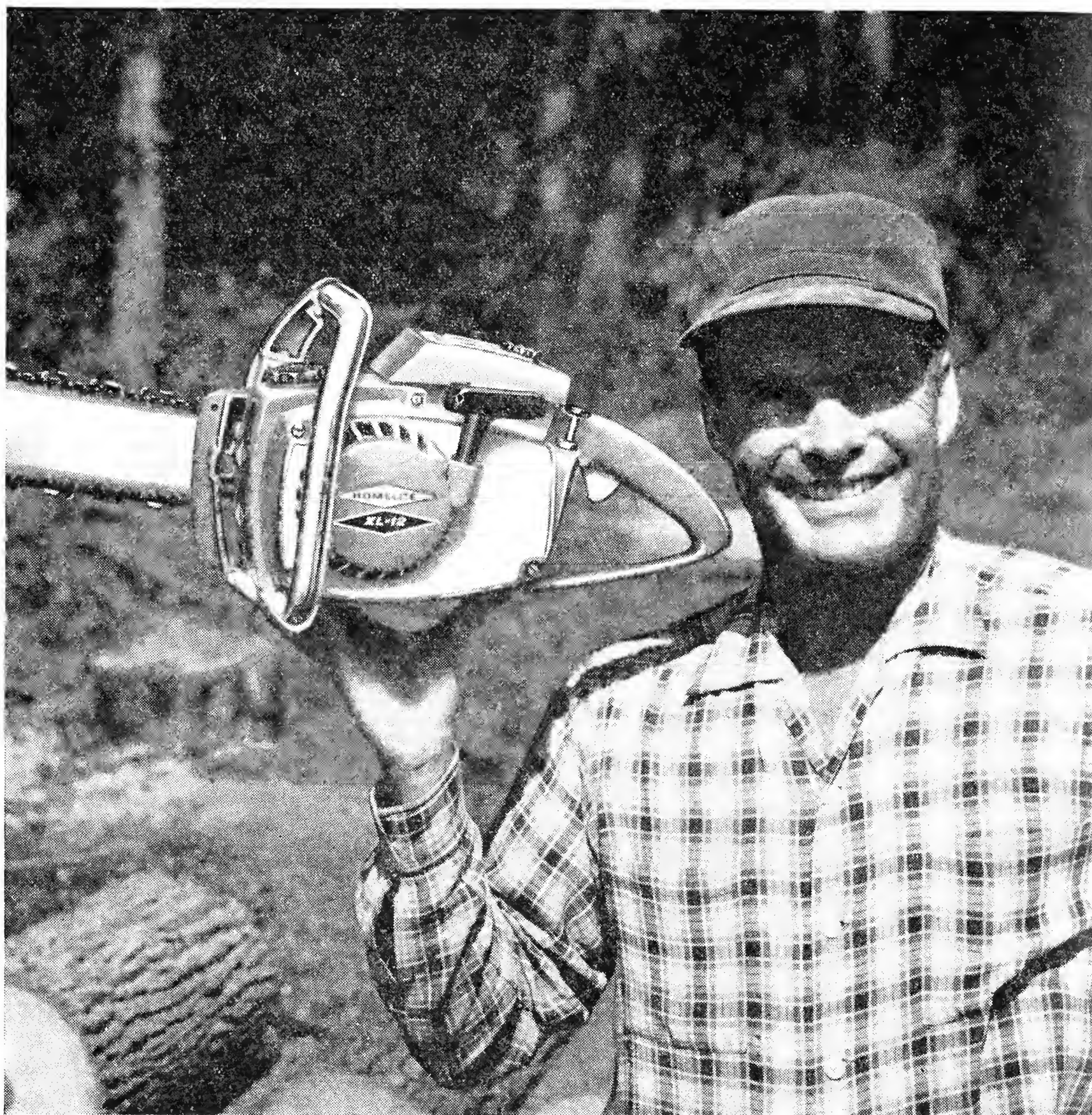
American Agriculturist



See Your Homelite Dealer

NEW YORK

Addison—Addison Farm Equip. Co. 121 E. Front St.
Akron—Blew Equipment Co., 32-43 Mechanic St.
Albion—Bentley Brothers, RFD 2
Altamont—Alfred L. Schager
Amsterdam—Joe Bazaar's Machine Shop, RD 2
Angelica—Herbert L. Wagner, Dalton Rd., RD 1
Arkport—Francis Gowinski, RD 1
Auburn—Evans & Lind, Route 6
Avon—Webb Implement Co.
Bainbridge—Carlton Loomis, Brackett Lake Rd.
Baldwin—Home Owner's Tr. Rntl., Inc. 500 Merrick Rd.
Ballston Spa—Perrino Implement & Tractor, RD 4
Bath—Bath Truck & Tractor Co., Inc.
Bedford Hills—H. A. Stein Tractor & Equipment Co.
Bellevue—Grastorf & Guilford, Main St.
Bellevue—Maurice L. Herron
Blasdell—Monarch Sales & Dist. Co., 4281 S. Pk. Ave.
Blooming Grove—W. H. Rudolph, Inc.
Bolivar—Bolivar Magneto Co., 65 Wellsville St.
Bradford—Fleet's On Lake Lamoka
Brewster—The Powerhouse, Route 1
Briarcliff—Wallace J. Scott, Jr., Route 100
Buffalo—Pittman Equipment Co., 3080 Transit Rd.
Callicoon—John H. Eschenberg, Route 17-B
Camden—Willard Road, 15 Harden Rd.
Canandaigua—Aldrich Farm Equipment, RD 2
Canastota—Alfred A. Patano
Canistota—Olson Equipment, 58-62 Depot St.
Conklin—Ray E. Goodell, RD #1
Carmel—Carmel Lumber, Rep., Fowler Ave. (Red Barn)
Carmel—Nichols Hardware, Inc., Main St.
Center Moriches, L. I.—Savage Hardware, 383 Main St.
Chaffee—Howard Ellis, Allen Rd. RFD
Champlain—Raymond Bedard
Chatham—Chatham Machine Shop, Rte 203 Church St. Ext.
Churchville—M. E. Fairbanks
Cincinnati—A. B. Brown, Co.
Clarence—Williams Tree Surgeons, Town Line Rd.
Clinton—Clinton Tractor & Impl. Co., Inc., Meadow St.
Coeymans—Badsdell's Repair Shop, Westerlo St.
Cold Spring—Cold Spring Service Center, Chestnut St., Route 30
Conklin—Ray E. Goodell, RD #1
Cooperstown—Earl C. Chase & Sons, Inc.
Cooperstown—Western Auto Associates, 167 Main St.
Cranberry Lake—Cranberry Lake Inn Marina
Croton-On-Hudson—Zeller's S. & S., 87 N. Riverside Ave.
Crown Point—Crown Garage, Route 9
Dansville—K. G. Richmond, 22 Ossian St.
Deer River—Francis Nichol, Saw Mill Road
Delhi—Delhi Farm Equipment Co., 23 Elm St.
Deposit—Edwin Hodam, Jr., Route 10
Downsville—Joseph Capaldo, Route 206
Duaneburg—Berical's Equipment Co., RD 1
E. Aurora—Aurora Sporting Goods, 170 W. Main St.
E. Aurora—Star Landscape, 7540 Seneca St.
E. Palmyra—J. J. O'Meara
E. Pembroke—Ron & Neils Sales & Service
Elmira—Cory's Hardware Co., 1548 Lower Maple Ave.
Elmsford—County Power Tool Co., 625 Whit Plains Rd.
Erieville—Magee's Service
Fairport—Knapp & Trau
Falconer—Schutt's Saw & Mtr. Shop, 155 S. Work St.
Fishers Island—Home Appliance Center, P.O. Box G
Franklinville—Len's Sharp Shop, 10 Green St.
Fredonia—Fredonia Farm Supply, McAlister Rd.
Fulton—Harold Burton, 202 Division St.
Garden City—Worth Sup. Co., 270 Nassau Blvd. So.
Gasport—C. J. Perry & Sons, Inc.
Geneva—C. M. Nielson & Son, Inc., 481 Hamilton St.
Germantown—Capitol Valley Cutters, Inc., Blue Stores
Getzville—H. & E. Motors, 550 Dodge Rd.
Glen Head—Countryside Enterprises, Inc., 691 Greenvale, Glen Cove Hwy.
Glen Falls—Burton Equipment Co., Upper Glen St.
Governor—NESCO (Northern Eng. & Sup. Co.), R.D. 5
Gowanda—Gowanda-Harley Davidson Sales, Zoar Rd., RFD 1
Great Neck—Gregory Coal & Lumber Co., Inc., 50 Center Mill Rd.
Great Valley—David J. Davies, Sugar Town Rd.
Greenwich—L. G. Collins, RFD 1
Hicksville—Red Fox Mower & Equip., Inc., 510 Old Country Rd.
Hillsdale—Hillsdale Farm Supply, Inc.
Holland—Lewis Machinery Service, Phillips Rd.
Homer—Home & Gdn. Ctr., 209-211 Sacandaga Rd.
Horseheads—Hansen's Sales & Service, Route 3
Hudson—Hansen's Marine Supply, 139 Fairview Ave.
Huntington Station—Island Power Tool Co., Inc., 152 W. Jericho Turnpike
Ilion—Burrill Saw & Tool Works, 401 East Main St.
Ithaca—Valley Fixit Shop, 365 Elmira Road
Jericho—L. L. Co. Contractor's Equip. Corp., 81 VII Dr.
Johnsbury—Walter Pope, RFD
Johnson City—Oakdale Equipment, 716 Harry L. Drive
Johnstown—R & R Service Equipment Co.
Keene—Gordon C. Wilson Chain Saws & Tractors, P.O. Box 16
Keeseville—Dan Downs
Kenmore—Kenmore Renting Co., 1297 Kenmore Ave.
Lake Luzerne—Lloyd S. Hall, Bay St.
Lake Pleasant—Wight's Esc. Station
Lee Center—Stokes Chain Saw Service, Route 26
Leeds—Peter Suttmeier, Sandy Plains Rd.
Liberty—Gerow Brothers
Long Eddy—Malcolm Crawford, P. O. Box 66
Malone—Elliott & Hutchins, Inc.
Margaretville—Fairbairn Lumber Corporation
Marlboro—States Sales Sons, Inc., Route 9W
Massena—Douglas La Point, Route 1
Mayfield—Peter Johnson, Route 1, Mountain Ave.
Mechanicville—Brenn's Lawnmower & Engine Shop, Route 2
Mendon—Saxby Implement Corp.
Middleburg—River Imp. Co., Inc., Middle Port Rd.
Middletown—H. L. Ayres, P.O. Box 187
Millerton—Brewer's Mower Sales & Ser., Sharon Rd.
Monsey—John W. Knapp, Route 59, P.O. Box 105
Moravia—Kilborne Brothers
Moravia—LaVerne Marks, 34 Center St.
Morrisonville—Ralph Pastley, P.O. Box 432
Naples—Francis Bills Garage, Route 1
Nesconset, L. I.—County Contractors Equip. Corp., 183 Smithtown Rd.
Newark—Gerry's Trading Post, 186 W. Union St.
New Lebanon—Joseph H. Mithun
New Rochelle—Gundlach's, Inc., 388 Main St.
New York—New Hippodrome Hdw. 70 West 15th St.
Niagara Falls—Delta Tool Rental, 2901 Military Rd.
Nicholville—Bould's Farm Supply
Nineveh—Maurice M. Wightman Sales & Service, Route 1 (E. River Rd.)
North Boston—Klein Equipment Corp.
Odessa—Odessa Farm Equip., Inc., c/o S. Darling, Rt. 1
Ogdensburg—Fred Shurleff's, Inc.
Olean—Washington & Catherine St.
Oneonta—West End Implmt. Co., Country Club Rd.
Orchard Park—Soc. Entres, Inc., 132 California Rd.
Oswego—Cloonan Small Engine Service, Route 2, Hall Rd.
Panama—Weise Hardware & Electric Co., Main St.
Pavilion—P-D Service
Peekskill—Caola Bros., Route 2-Rt. 202
Penn Yan—Smith's Farm Store, Inc., 135 E. Elm St.
Pike—Mr. Leon Wilcox
Port Gibson—Port Gibson Equip. Co., P.O. Box 151
Port Jefferson Station—Vehicle Service Corp., 1575 Patchogue Rd.
Port Leyden—McHale Chain Saw Co.
Poughkeepsie—John G. Gauthier
Prattville—Prattville G.L.F. Service
Brdwood—William D. Boyer, P.O. Box 128
Riverhead—L. I. Prod. & Equip. Co., Inc., Putaski St.
Rochester—John Peathers, 4137 W. Henrietta Rd.
St. James, L.I.—McNeil's Lawn Shop, 665 Jericho Tpke.



World's Lightest Direct-Drive Chain Saw!

Revolutionary new 12-pound* Homelite cuts 12-inch logs in 10 seconds, fells trees up to 3 feet in diameter.

The new Homelite XL-12 weighs a mere 12 pounds, making it the lightest chain saw ever *with so much power*. Trim and perfectly balanced, it'll carry as easy as a six-pack of your favorite beverage. But don't let the light weight and small size fool you. Flick the switch and pull the starter-cord. You've got a he-man Homelite in your hands—with professional power and performance.

Homelite's exclusive weatherproof-ignition-system delivers a "hot spark" that always gives an instant-start—whether the day is hot, cold, dry or damp. And wait until you cut with it. That's the real convincer! See the shower

of sawdust. Feel how smoothly the XL-12 slices through a tree. This is your kind of power and performance!

And nothing was sacrificed in getting so much power into such a small package. The XL-12 not only packs power-plus, it also has Homelite's top-professional features—including reinforced die-cast construction that will stand up to the most rugged use.

The XL-12 represents the greatest advance in chain saws in over a decade. When you actually cut with it, you'll realize how really revolutionary it is. Try it, today! You will really be surprised, too, at its low, low price.

HOMELITE Textron DIVISION *less bar and chain. Saw complete with bar and chain weighs as little as 14 pounds. It's available with 12, 16, 20 and 24 inch cutter bars.

HOMELITE XL-12

Salem—George A. Jolley, S. Main St.
Sanborn—Lewan Hardware, Inc., 5856 Buffalo St.
Saranac—John T. Ryan
Saranac Lake—Moody's Sales & Ser., 7 Dupuy St.
Saugerties—Kermit, Route 5—P.O. Box 13
Savannah—Dickens Bros.
Schroon Lake—Lakeview Outdoor Center, Inc.
Scotia—Vanstone Acres
Skaneateles—Bobbert Implement & Tractor Co., Fenwick Street—P.O. Box 9
Smeyna—John E. Blanchard, Route 80—Main St.
Sodus—DeLaser Bros.
Southampton, L. I.—Wm. A. Frankenhach Garden Center, North Hwy., North Main St.
Speculator—Gerald Bayce
Springville—Warner Lumber Mtr. Route 1
Stamford—Ekland Farm Machinery, P.O. Box 216
Staten Island—Forest Equipment Co., 1319 Forest Ave.
Staten Island—United Rentals of S. I., 3874 Richmond
Staten Island—Trimalawn Equip., 2081 Victory Blvd.
Stone Ridge—Dedrick Power Equip. Co., Cottskill Rd.
Summitville—L. Finkle & Son, Inc., Route 209
Syracuse—Alexander Grant's Sons, 925 Erie Blvd., East
Tarrytown—County Power Tool Co.
Troy—E. F. Goyer, RD 1, Box 35
Troy—Troy File Works, 249 Congress St.
Trumansburg—Millsbaugh Bros., Cayuga St.
Tupper Lake—Beverly St. Onge, P.O. Box 895
Warrensburg—Carl R. Kenyon, Route 28
Warwick—Walter Equipment Co.
Waterloo—Seaway Marine, Inc., 473 Waterloo, Geneva Rd.
Watertown—White's Lawn Supply, Route 4, c/o C. Howard White
Wayland—Gross & Dudas, 1 Main St.
West Albany—Abel Trac & Equip. Co., 72 Everett Rd.

West Hampton Beach, L. I.—West Hampton Fuel, 112 Montauk Hwy.
W. Henrietta—James R. Hauna, Inc., 6800 W. Henrietta Rd.
West Middlesex—Thompson & Matejo
Westport—Marshall F. Fish, P.O. Box 14
West Winfield—West Winfield Farm Supply
Whitehall—N. H. Macleod Saw Shop, Comstock Rd.
Whitney Point—H. A. Penningroth & Son
Williamsville—Intner Tool & Supply Co., 74 Cranburne Lane

NEW JERSEY

Allendale—Allendale Equipment Co., 317 Franklin Turnpike
Allenwood—Sigler's, Rte. 34, Spring Lake Circle
Bayonne—Allied Equip. & Sup. Co., 691 Broadway
Bayville—Dover Supply Co., Mt. Creek Rd., P.O. Box 227
Bergenfield—Bergen Rental Service, Inc., 150 S. Washington Ave.
Blainstown—J. C. Roy & Son
Branchville—The Roy Co.
Cliffside Park—Haltop Hdw., 666 Anderson Ave.
Clinton—P. G. Berger & Co., P.O. Box 5286, Rt. 2
Cranford—Andy's Handy Service, 117 South Ave., West
Dover—Handymans Tool Shop, Centergrove Rd., & Route 10
Eatontown—Grasslands, Inc.
Elizabeth—A-M Tool Rental, 67 Cherry St.
Englishtown—Joseph J. Szecepanik, Union Val. Rd.
Florence—Harkins Sls & Ser., Rte. 130 Cedar Lane
Freeland—C. H. Roberson, Inc., 29 Court St.
Garfield—Ralph's Hwy. Ser., Rt. 46 & Blvd.
Gladstone—G. F. Hill & Co.
Hackensack—M. B. Bowers & Son, Inc., 128 Willow Grove St.

Hanover—Do It Yourself, Inc., Route 10
Hazlet—Service Equipment Co., 3141 Route 35
Hewitt—Sportsman's Boats & Motors, West Shore Rd.
Kearny—Morris Hardware & Paint Supply Co., Inc., 101 Midland Ave.
Lanhamville—John Kirtz, Route 1
Ledgewood—New Jersey Lawn & Power Mowers, Equipment, Route 46
Livingston—Needham's Grinding Service, 119 W. Mt. Pleasant St.
Madison—Trac & Lumber Sales & Ser., 331 Main St.
Maplewood—Gauthier Door Check, 2 Burnett Ave.
Medford—Fred Myers, Jr., Route 2—P.O. Box 304
Middletown—Monmouth Mower Shop, 656 Route 35
Monroeville—Albert Weber, Route 528
Swedesboro—Franklinville Rd.
New Egypt—J. R. Caines, Route 539
Northfield—Vic Collins, 2101 New Rd.
North Plainfield—Unice Rent-A-Hls, 714 Route 22
Oakland—Bergen Power Equipment, 593 Valley Rd.
Old Bridge—Old Bridge Tractor RFD—P.O. Box 328
Old Bridge—W. J. Rainano, P.O. Box 95, Highway 9
Pine Brook—Shubert Tractor Co., Route 46
Princeton—Town Saw Shop, Tulane St.
Riverdale—Wayside Garden Center, Route 23
Riverton—Riverton Farm & Garden Sup., Inc., Rt. 130
Short Hills—Millburn Grinding Shop, 658 Morris Turnpike
Sparta—Sparta Hardware, 182 Woodport Rd., Rt. 15
Summit—Glengary's Mtr. & Gdn. Shop, 385 Springfield Av.
Sussex—Len's Service Station, Route 1
Union—Rent-A-Tool, Route 22
Vincentown—Wells Mobile Service, Route 206
Vineland—Swanson Hardware Supply, 553 N. E. Ave.
Waterford—Rusnak Bros., Inc.
Williamstown—Weed's Lawn & Garden Mart, 311 S. Black Horse Pike

HOMELITE BRANCH OFFICES: 40 New London Rd., Latham, N. Y.; 1650 Wilham St., Buffalo 6, N. Y.; 2018 Erie Blvd., East Syracuse 6, N. Y.; 39 River Road, North Arlington, N. J.; 122 Amboy Ave., Woodbridge, N. J.



American Agriculturist

A CONSTRUCTIVE FORCE IN NORTHEASTERN AGRICULTURE

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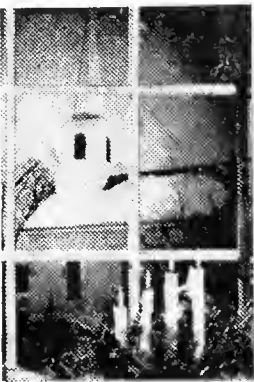
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MERRY CHRISTMAS!

May this Christmas somehow mean more to you and yours than ever before. Take time through the holiday season to relax a bit; pop some corn; take off your shoes; and resist the temptation to be "up and at 'em" at the same old pace.

May this Christmas be one of laughter and homecoming; one of visiting with friends and opening presents. And, amidst all these things, may it also be to you a source of strength in our troubled world—a reminder of spiritual hope, and a testimony to the power of faith.



MR. HENRY BROSNAN



MR. ROLAND EDWARDS

CAMBRIDGEPORT, VERMONT

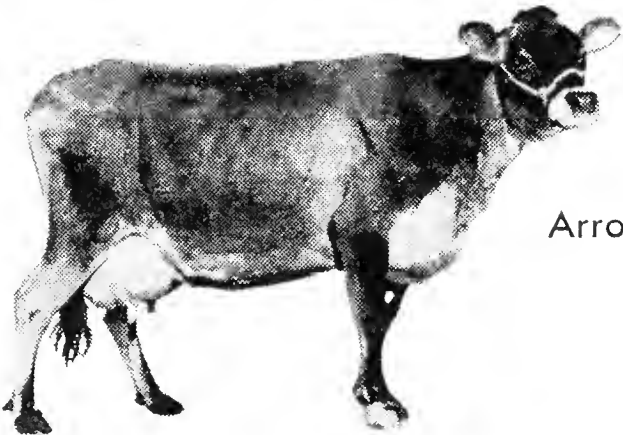
WAYNE HELPS VERMONT DAIRYMEN

Increase Milk, Butterfat for Second Straight Year

• The successful Brosnan & Edwards Dairy Farm of Cambridgeport, Vermont, set new records for their Jersey herd for the second straight year on the Wayne "High Level Grain Feeding" program. Their 1961 DHIA herd record was 6th in the country for both milk and fat. In 1962 they upped their record still more!

	1961	1962
Cows milked	55	49
Pounds milk	11,187	11,653
Pounds butterfat	591	602

Brosnan & Edwards achieved these outstanding results using Wayne Parlor Test 16% Dairy Feed in their program.



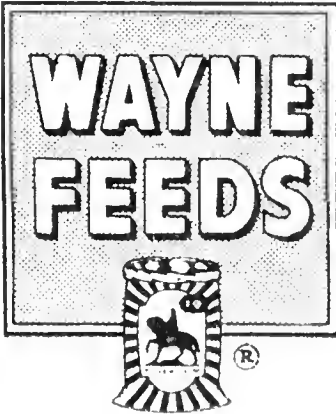
WAYNE-FED CHAMPION

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This outstanding Brosnan & Edwards Jersey set a National Champion Milk Record as a heifer (1 yr.—10 mo.) on 305 2x DHIA. She produced 13,920 lbs. of milk and 643 lbs. butterfat.

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EDITORIALS

BY GORDON CONKLIN



THERE IS NO SANTA CLAUS

A POPULAR conception of God is one of a benevolent Santa Claus to whom we go when we want something very badly—a sort of genial genie who magically produces life's goodies upon special request. An even more popular idea is that Uncle Sam is Santa Claus—dispensing to all who express a “felt need” wealth created from thin air in some wondrous North Pole workshop. Neither concept troubles itself with the ringing challenges that religion and patriotism associate with God and country—moral character, individual responsibility, personal sacrifice, and hard-nosed integrity.

There is no Santa Claus—either in Heaven or in Washington. Our God offers to us spiritual and material blessings in overflowing abundance, but not in the role of a cosmic bellhop. Our governments at all levels deserve support for performing a host of important functions, but they dispense nothing which has not first been taken from the toil of the taxpayers.

I can become warmhearted and sentimental about Christmas because of its overwhelming meaning in terms of God's relationship to man—and man's relationship to his fellow man. It's a time for family visiting, a time to kick over the traces of that diet, a time to enjoy the wide-eyed excitement of the young fry when they see the packages under the tree.

It's even a time to indulge in a little double talk with the wee ones about Santa Claus, the elves in his workshop, and the famous team of reindeer led by Rudolph. I'm for this bit of subterfuge—as long as we adults join St. Paul and “put away childish things” when we proceed into the new year to wrestle with budgets involving public funds, personal finances, and political decisions.

The heart-warming experience of Christmas—if it includes something of the spiritual—can be sustained and even grow through all the year that follows. May its glow light up new places in your heart in this year of our Lord One Thousand Nine Hundred and Sixty-Three. And, in spite of dour comments by Ye Editor, may this Holiday Season be a joyful ending to another chapter in your book of life, as well as a hopeful beginning of the next.

MILK PRICING

THE SMELL of burned gunpowder around The Northeast comes from the fight over the USDA final decision to eliminate free hauling of bulk milk. As the smoke of battle clears yours truly rushes in where angels fear to tread with some observations, to wit:

1. The New York-New Jersey milk marketing area (Order No. 2) is the only one in these United States where the question has ever been seriously raised about pricing the milk at the farm instead of at the plant. In other order areas milk has always been priced at the receiving plant, and producers have been responsible for hauling costs. To me, this is evidence of the power of northeastern milk marketing cooperatives—an ability to negotiate a concession to producers that is unduplicated anywhere else.

2. Another feature of the New York-New Jersey milk marketing order area that contrasts with many other areas is the considerable degree of competition among handlers for milk supply. I'll bet there is a real question about whether handlers will be able to invoke bulk handling charges very successfully, especially in the light of recently strengthening market conditions.

3. Did you notice that total September milk receipts in the Order 2 milkshed were **down** 2.35 percent from a year ago? Fluid sales for the same month were **up** 2.29 percent, and fluid utilization had climbed to 57 percent of milk received.

Cow numbers are down in the milkshed from a year ago; heifer calf numbers are down even more. Could it be that an adjustment is taking place—that supply is moving down in response to price? Some modern “economists”, you know, claim that human nature has reversed itself and now responds to lower prices with increased production.

4. Regardless of what is decided about pricing bulk milk, the long-run pressure will continue to force a shift from cans to bulk. In this respect, the Order 2 area is way behind New England to the East and the Midwest on the other side. The handwriting is on the wall; the nature of USDA decisions will slow or speed conversion, but economics dictate that bulk handling continue to become more widespread.

MOM'S NOT AT HOME!

EVERYWHERE across rural America there is a tendency for more women to take a full-time job. It has become common for a younger wife to take a few months off for a blessed event in the family, and then return to work after arrangements have been made for a baby tender. My remarks, by the way, concern primarily younger wives and mothers; I won't attempt precisely to define “younger.”

Many a woman takes a job to help pay unusual medical bills, or to help stretch the family exchequer to cover the cost of sending children to college. Some do it to help the family through lean years when income is low. Others want to buy something the family wants very badly, something that may be beyond the reach of the husband's income.

When Mom starts to work full time away from home, the thumbscrews on available time are tightened up on the whole family—Dad's “spare time” seems to shrink a bit too. Understandably, the gals who do not join the work force sometimes feel imposed upon to carry much of the load of community activities. Most working mothers are interested in having their children participate in these activities, but often don't have time to help out themselves.

Inevitably this question arises in the minds of the full-time housewives, “Mrs. Doe is working to help pay for a brand-new kitchen and that boat the family enjoys so much. Is it fair for her to ask me to give my unpaid time and have her children in my Sunday school class and 4-H group—especially when she is unable to help because she is working?”

All this brings me to ask the question whether our society will have to begin paying more people who once were volunteers. Or, as a constantly-growing percentage of the nation's “woman power” goes to work for wages or salaries, do we need to cut down on some of the activities for which leadership is not paid?

What's your opinion?

CATNIP SMOKER

JIM PATTON, president of the National Farmers Union, has been smoking catnip in his corn cob again. The last time he did that, he advocated that all farmers in this country be licensed and that nobody be allowed to enter the profession unless they first obtain certification by “proper authorities.”

He's had another pipeload, and now proposes the establishment of an Industrial Commodity Stabilization Price Support Program relating to such commodities as steel, chemicals, and machinery. He says, “Such a program would support a fair price for steel and any and all industrial goods if they are produced at not less than 95 percent of capacity, and any goods not sold in the commercial market—both domestic and foreign—should be put through an Industrial PL 480.” That last hieroglyphic in his remarks refers, of course, to the present law which liberally disposes of our surplus agricultural products to foreign countries.

Jim, since you're in favor of governmental regulation of every price in sight—agricultural and industrial—why not take a closer gander at the Russian system where this is already in effect? They probably have some experience on “fair” steel prices that would put a “fair” price on the tractors farmers buy so they could grow wheat that would sell for a “fair” amount to bakers, who in turn would charge the consumer a “fair” price. But please, would you fill your pipe once more and see if you can get your genie to produce men with the perfect knowledge and divine wisdom needed to define “fair” prices in an administrative way?

Oh, and by the way—check on the truth of all the recent headlines we see claiming the Soviet system doesn't work so well, will you? Maybe we've been misled.

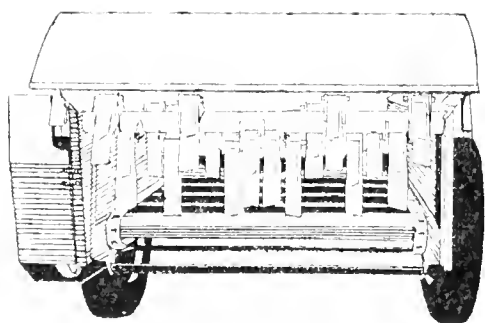
FERTILIZER PHILOSOPHY

IN MY LAWN is a spot about a foot across in which all vegetation has been killed. Around the circumference of this spot is a ring of grass that is twice as tall and twice as green as that nearby. You see, my five-year-old son helped put in the garden last spring and he spilled some 16-8-8 fertilizer on the lawn.

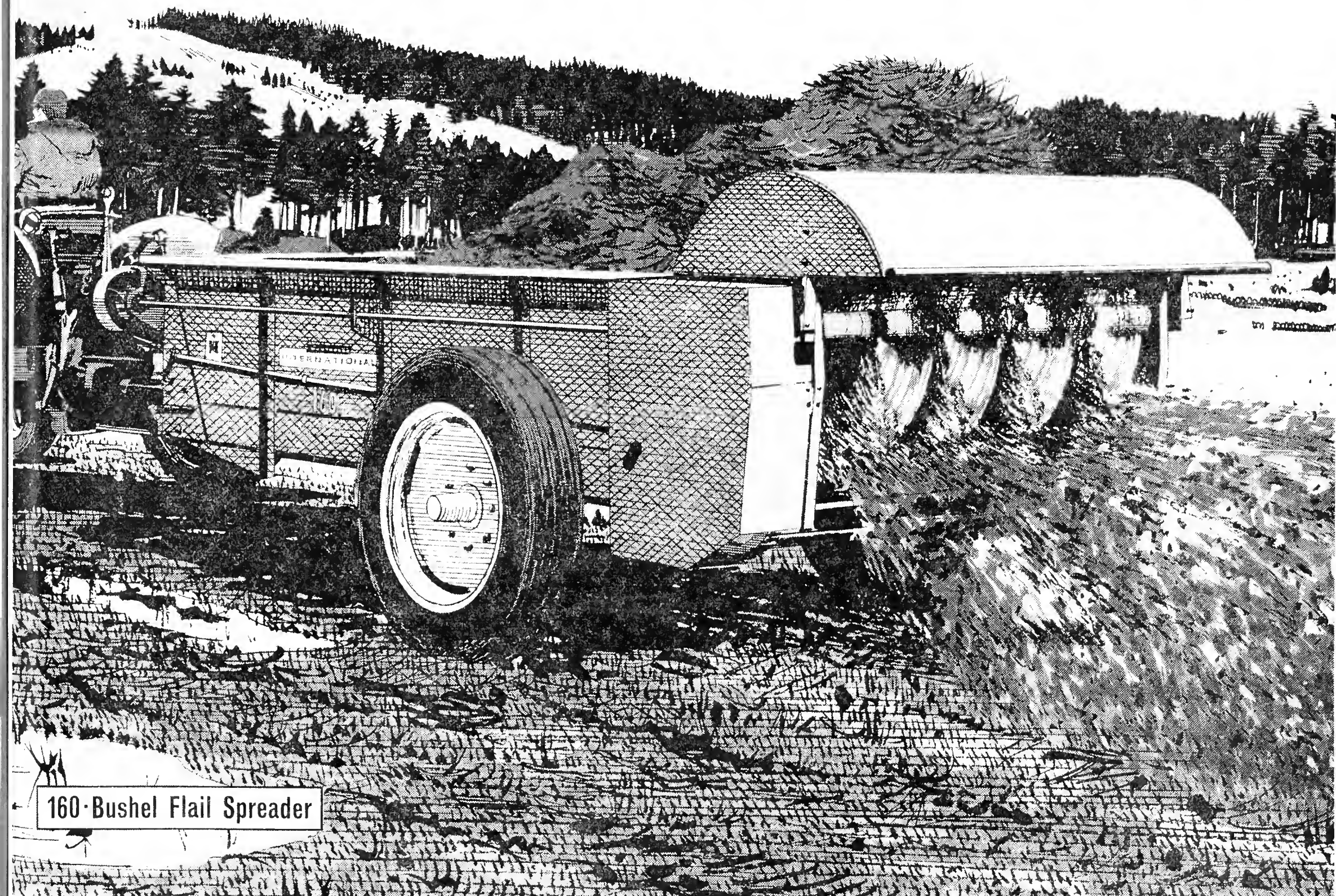
My organic gardening friends would look only at the area of dead grass and say triumphantly, “See, I have been telling you all along that chemical fertilizers are poisonous—just look at what it did!” Some folks, on the other hand, would look only at the ring of extra vigorous grass surrounding the dead area and say, “Look at the lush growth where fertilizer is used! Here's a good thing that just can't be overdone!”

So it goes in farm organizations, farm legislation, the debate over the use of insecticides, and many other things. We start off with a foregone conclusion and then cite evidence, drawn from a small piece of the facts, in order to back up our point of view. Hopefully, each of us can move constantly toward a broader perspective of the facts—including the total picture in the assessment of a situation, rather than only that which supports our own beliefs.

— American Agriculturist, December, 1963

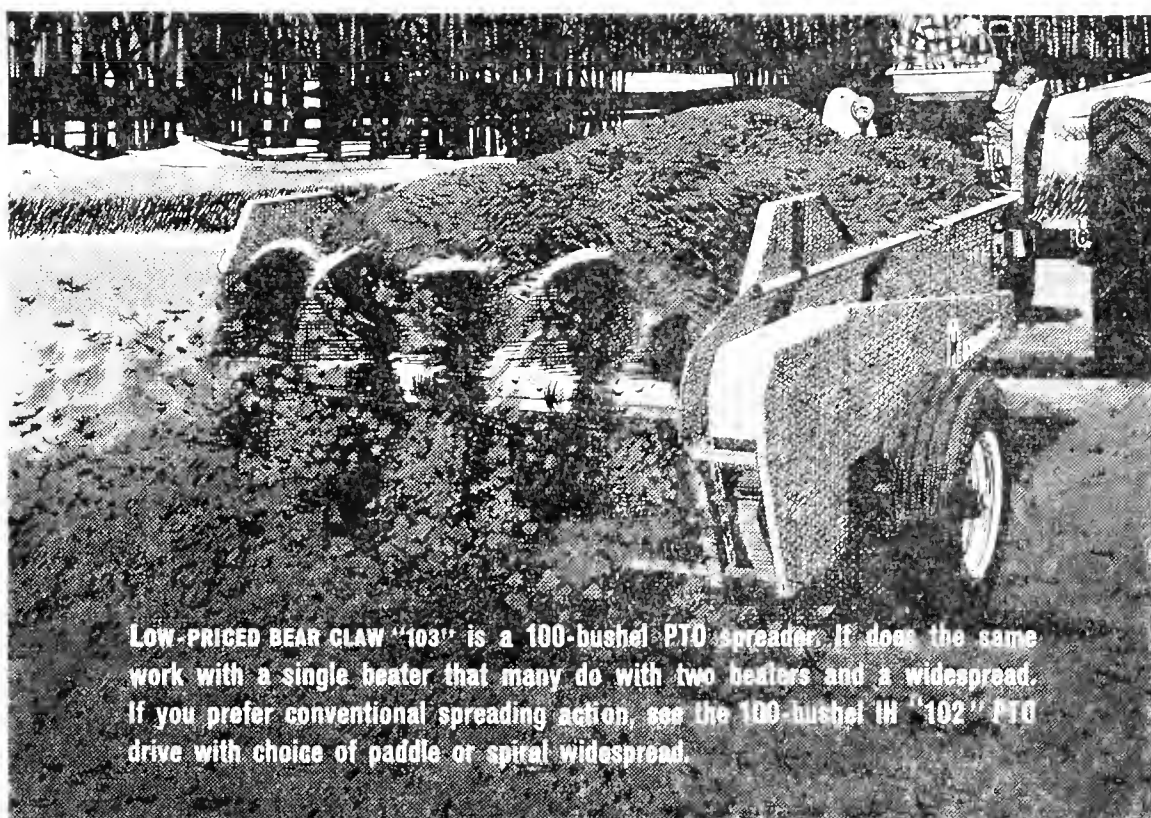


New IH flail spreader slices fast and fine at 5° below zero

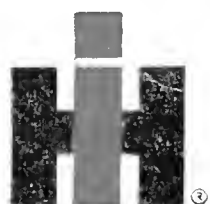


160-Bushel Flail Spreader

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Gayway Farm Notes

By HAROLD HAWLEY



"JUST MUSH"

Along with hundreds of others, we attended the session in the War Memorial Building in Syracuse at which Secretary of Agriculture Orville Freeman talked, answered questions and listened to comments by people in the audience.

For many of us it was quite a thrill to see and hear the Secretary in person. Few in the audience could fail to be aware of the man's grasp of the problem, or of his mastery of statistics associated with agriculture. Possibly it is no understatement to say we all marvelled at his ability to "field" all manner of questions. Either he gave direct answers or so artfully sidestepped as to avoid any embarrassment.

That there was an honest difference of opinion between the Secretary and some of the audience was not surprising. Nor was it unexpec-

ted that the hundreds of government employees who packed the meeting should find it easier and more natural to agree with and to applaud the Secretary than was the case for some others. It's pretty hard to see how all this could have been otherwise.

The real tip-off on the meeting—and for me the most disturbing thing about it—came almost at the very end. In summing up Mr. Freeman said that some comments from the audience made no sense to him and seemed to be "just so much mush". Now, I have no argument with Mr. Freeman, his beliefs and his philosophies, even though I happen to disagree with many of them. I respect his right to his views. However, I find it most distressing when he (or any other public official) is so unresponsive to public opinion and/or so contemptuous of our beliefs as to label them just mush —

especially at a meeting he called to "hear" from us.

I tried to be real fairminded about this whole thing before the meeting, but I admit to having been a bit suspicious that Mr. Freeman was here on a little "non-political tour" to hear what he wanted to hear. The faithful made sure he heard that we want lots more FHA and more money to create recreation sites with public money.

I'm not sure he heard so clearly that some are interested in less government in agriculture — including no dairy supply management program. While the Secretary expressed confidence in private enterprise, he immediately thereafter chided us for being afraid of the "bogey man"—meaning government. All in all, I left the meeting with the feeling that our dairy co-op leaders have a rugged job ahead.

CUTTING VS. BUYING LUMBER

When we extended our barn 4 to 5 years ago, we cut the logs and had the lumber sawed out. Even this is pretty expensive when all the costs are figured. Neighbor Harold Sturges bought used lumber at reasonable prices. One real advantage for used lumber is that it will have been planed and will be of uniform width and thickness.

One of the hidden extra costs of using rough-sawn lumber was the levelling up of the floor joists. The width of the 2x10's varied enough

to make this quite a chore. At the cost of labor, one can soon run up the cost of a barn addition if much of this work is needed.

We are looking toward another expansion of our cow housing as we enlarge the herd and business to make room and income for son Bruce when he finishes schooling. The kind of winter we have could make a lot of difference, but we've about decided to cut out our own lumber, but to get the joists and flooring planed. Naturally, rafters and roof boards will do just as well rough as finished. It's our guess that it will pay well to get the planing done rather than to spend the extra time to shim and trim the joists if they are used rough. This extra labor, whether we do it or hire it done, can really hurt.

Our hardwoods — beech, ash, and maple — will give more strength and nail-holding ability than commercial pines. We have basswood, hemlock, and pine for spots where strength is not needed or for finishing.

What to Build?

A far more important problem than what to build with is what to build. We plan now to continue with the stanchion set-up in spite of the obvious feeding efficiencies associated with loose housing. We are hoping to be able to figure easier and cheaper ways of feeding than we now have.

Augers are one obvious answer in a loose housing set-up, where cows can feed from both sides of a bunk and the number of cows to be fed per 100 feet of auger can be pretty high. Aside from its obvious nuisance value, the cost is too high for an auger feeding only about 1 cow for each 4 or 5 feet of auger, as in most stanchion barns.

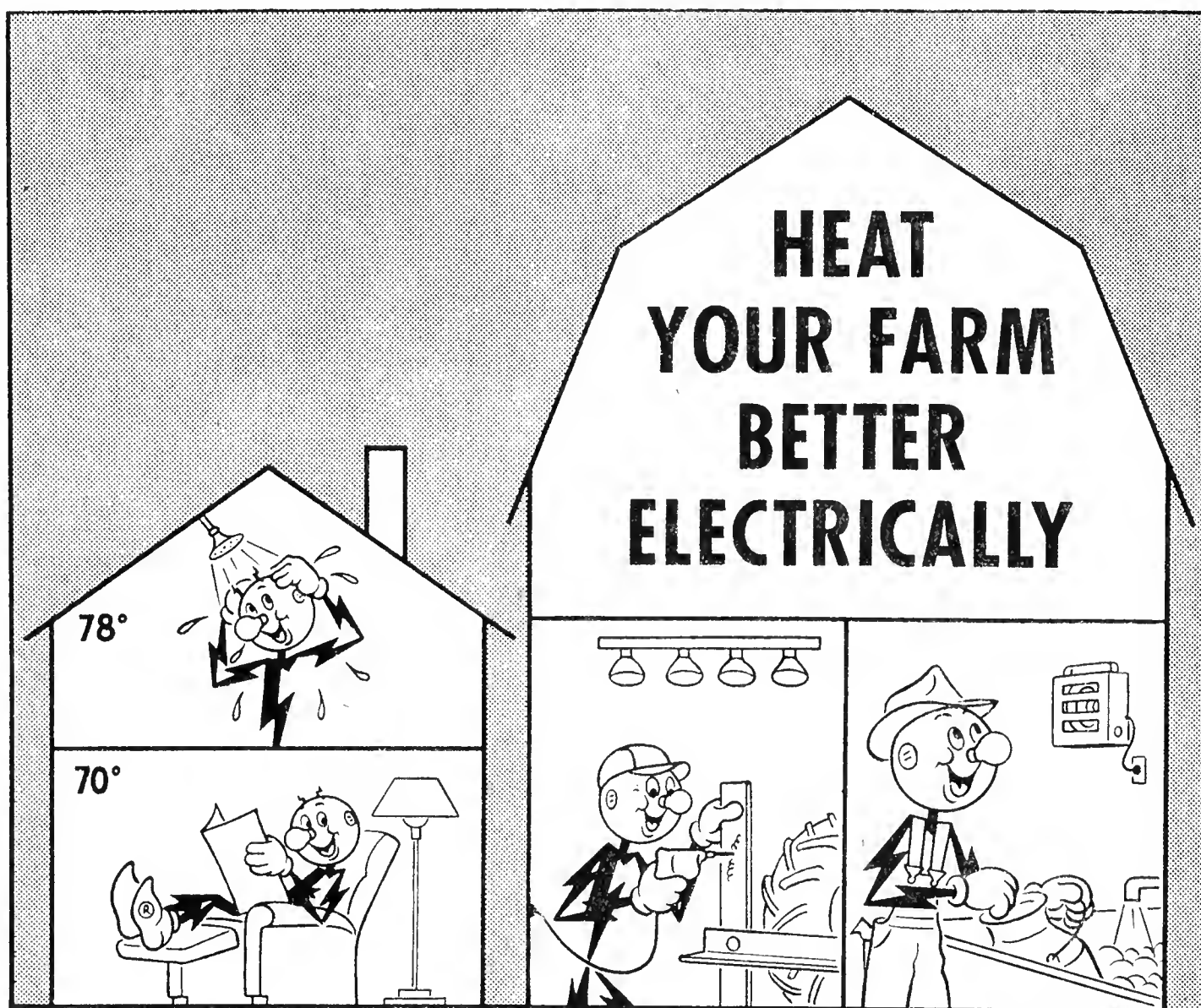
For this reason we are toying with the idea of building a shed-type roof on one side of the barn to make four lines of cows instead of two longer lines. This would allow us to face both pairs of lines out, with the two middle lines face to face. Then maybe we can afford to feed these two lines of cows with an auger and feed the two outside lines in some other way. This arrangement suggests silos at the end of the barn rather than on the side where they are now. That, of course, is always the trouble where we must live with old barns and old layouts built with something else in mind.

If feeding efficiency was the only consideration, we would certainly go to a loose housing, free stall arrangement. Possibly we're old-fashioned, but we still like to have the cows in warm, clean stalls where we can handle them on an individual basis. Having made that decision, the next job is to learn how to feed and milk as easily and cheaply as possible in a stanchion barn.

FEED ONCE A DAY?

A few years back, before we kept regular help and when our boys were our chore-time help, we ran into problems at night during football and track seasons in the spring and fall. We settled for a full day's feeding of silage, grain, and hay — all heaped on by seven o'clock in the morning. At noon and at chore time at night we walked through and pushed the hay up. Granted we weren't pushing the cows as hard with grain then, nor getting near the present production. But at that level of feeding and production we couldn't see that once-a-day feeding made any difference.

(Continued on Opposite Page)



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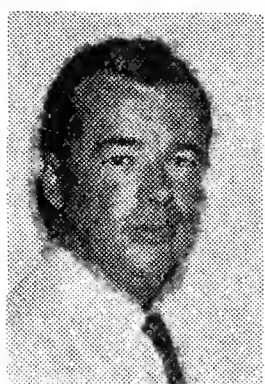
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INVESTOR OWNED-TAXPAYING

County Agent Report

BILL QUINN, Associate County Agricultural Agent in Onondaga County, New York, had the privilege last summer of going on a tour of agriculture in sixteen states, a tour sponsored by the Dow Chemical Company. He had a chance to visit with many county agents, farmers,



Bill Quinn

and business men serving agriculture. Here are some of the things which impressed him most:

1. **The same problems are common to many areas.** The problems facing New York dairymen, for example, are not so different from those facing the midwestern cattle feeder — mechanization, specialization, high capitalization! Small farms are on the way out everywhere.

However, some areas have problems quite different from those in Central New York. In some areas, those lacking industrial or commercial tax base, farm land must bear most of the cost of increasing local government services. This was the reason that many of the roads in excellent farm counties in Iowa still are gravel, as contrasted with our hard surface roads here.

2. **Contract farming is entering the picture.** We expected to find it in the broiler industry of the South. In Cherokee County, Georgia, for example, 99 percent of the county's annual broiler production (24 million birds) are produced under contract. But, it's also coming in the Midwest. Here packing plants have started to pay cattle feeders a flat rate per pound of gain, providing the steers themselves.

3. **Soybean acreage is expanding in both the South and Midwest.** The soybean, which dates back nearly 3,000 years, is truly a 20th Century crop. Its value has increased a hundredfold in the last 25 years, from a \$10 million crop to a billion dollar crop. It's now our fifth most important cash crop.

4. **Both production costs and prices of farm products show considerable variation among areas.** Labor, for example, was much cheaper in the South. We visited a fruit packing

plant employing about 100 people. This plant, not subject to wage-hour laws, was able to fill its labor needs at 60 cents per hour. Building costs (for equivalent structures) appeared lower in both the Midwest and South than here in New York.

Prices that farmers received for a hundredweight of milk varied from about \$3.25 in parts of the Midwest to as much as \$6.70 in a North Carolina market. Base-surplus plans were in existence in most of the southern states we visited. They appeared popular with dairymen.

5. **Many farmers seem to be able to make a living without working as hard as the northeastern dairymen.**

Without belittling the labors of the crop or livestock farmers of the Eastern United States, it would appear to a casual observer that they have chosen a less laborious segment of agriculture than the twice-a-day, 365 days-a-year job of the dairyman.

Livestock, poultry, and crop production seem to lend themselves more to mechanization and automation. Swine finishing operations which we visited were completely automated. Automatic feeders were controlled by a timer. Manure was flushed into lagoons.

6. **There is no one single pattern of success in farming.** We saw successful operators who placed emphasis on entirely different parts of their operation, who attacked problems in entirely different ways. Again, the key to success seemed to be with

management.

7. **Government and governmental regulations have a greater effect on western and southern farms than they do presently with those of the Northeast.** Several Indiana, Illinois, and Iowa feeders, their yards filled with prime cattle ready for market, considered the "sour" market to be partly caused by the new income tax regulations in regard to expense accounts. They believed that the hotel and fancy restaurant trade, principal buyers of cuts from prime beef, were buying less. Several planned to finish future cattle to lower grades.

Grain bins holding government-owned corn were a common sight throughout the Corn Belt. In the South, the value of many farms was determined more by the size of tobacco allotments than by soil type.

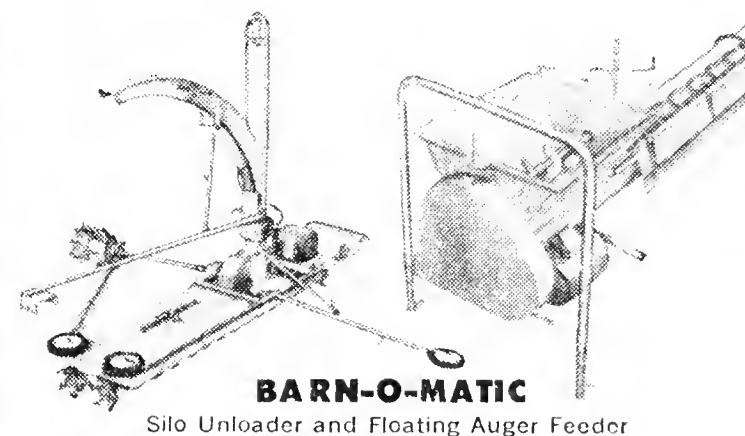


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Silo Unloader and Floating Auger Feeder

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Gayway Farm Notes

(Continued from Opposite Page)

Now we are wondering if it would make any real difference at present levels of feeding and production? We would like to cut down the labor of cleaning mangers twice a day, and the time involved with feeding twice a day instead of once.

Frankly, we have been a little "chicken" to start doing it. Maybe some of you are doing it successfully. If so, let's hear from you.

GRATEFULLY YOURS

Many of you have been good enough to drop us a comment about this or that during the year, and we have in that way become better acquainted with you.

As we approach the holiday season, we feel especially privileged to have the opportunity of visiting with you each month, and want to thank you for your expressed interest. To each of you, we here at Gayway send our best wishes for a very MERRY CHRISTMAS.

ALL SILAGE

WE FEED practically all our hay to our young cattle; the 50 cows get roughage from some pasture and two 14' x 50' silos. In 1963, we harvested hay from six acres of the 15 acres of hayland and pastured the rest. The rest of the 61 acres of tillable land included 25 acres of corn, 15 acres of oats, and six of tillable pasture.

The 25 acres of corn, planted to provide all the roughage for our milking cows, this year included M-3, M-4, Michigan 250, and NE 133 varieties. In the short season of 1963, we found Michigan 250 the most mature at the time of an early frost. We planted to get a stand of 25,000-27,000 plants per acre and, judging by an actual count of sample rows, we came pretty close to that. Average yields have been around 20 tons per acre. If the weather cooperates, we like to let corn get as mature as possible before ensiling—so mature that grain lying on top will sprout in the silo.

Atrazine was used this year for



Charles Rabeler pushes the switch on a silo unloader.

weeds and we didn't cultivate at all. All manure went on corn ground, plus 200 pounds of urea per acre plowed down on most of the land. Where urea was not used, we put on 300 pounds per acre of 16-8-8; if urea was plowed down, we used 300 pounds per acre of either 12-12-12 or 8-16-16.

Our forage program was consider-

ably different some years ago. We once fed all hay as a roughage, but in 1955 we began soaking on the lime and fertilizer so meadows began to produce so much that timely harvest became even more difficult than usual. Our area is generally a rainy one, so we turned to grass silage as a way to get a jump on the weather.

However, we soon wanted to split up the silage harvest so it wouldn't come all at once — therefore, we planted some corn and went to a system of putting in half of our silage from the meadows and half from the corn field. When our herd hit the corn silage, production jumped so much that we decided to go all corn silage. Our Jersey herd has produced an average of 1,000 pounds more milk per cow per year on corn silage than on grass silage.

We have a small mow dryer in the barn and were able in 1963 to finish the first cutting on those six acres I mentioned by the first week in June. This system gives us top quality hay. The milkers get hay if the silo unloader breaks down, when the unloader is being moved from

one silo to the other (two days), and if a cow goes off feed on silage.

If a cow does go off feed, as they sometimes will, we switch them to all hay until they begin to steal silage from neighboring cows — then we put them back on all silage. Mixing the two roughages doesn't work in our system because we don't want the cows to expect both. If hay is fed, there is always some left in the manger that must be swept out. With all silage, we've gone for two weeks without ever sweeping a manger. Also, if we feed both silage and hay, our cows never seem to eat either one as well as when being fed only one roughage.

Our cows range in daily silage consumption between 45 and 75 pounds each. Feeding all silage requires more attention to each cow because, if each one is fed the same amount, one may go hungry and the next one get too much and go off feed. We try to feed each one all she will eat—but no more. — *Alex and Charles Rabeler, Bovina Center, New York*

Personal Farm Experience

The items on this page all come from the firing line of farm production.

GRINDS OWN FEED

WE HAVE our own feed processing setup for our 12,000 hens and herd of cattle that includes 55 milkers. About 80 percent of the feed volume goes to the hens. Last year, we used a total of 700 tons of feed, but will handle less this year because we're now buying started pullets rather than raising our own.

There are six bins in the grain storage building; two hold 10 tons each of shelled corn and the other four are half the size of these two. One of the four contains oats, one holds a dairy concentrate (protein, minerals, vitamins, etc.), one has a poultry concentrate, and the other is for special mixes such as a medicated ration for the hens.

All bins empty into a hammermill equipped with a three horsepower electric motor that is controlled by a time switch. Feed is augered from the hammermill to the hoppers of automatic poultry feeders, running first to the third floor, then by gravity to the second and first floors. When all hoppers are full, a bin level switch on the third floor hopper automatically turns off the mill. There is a similar switch in the dairy feed storage. I should also mention that automatic switches turn off the mill if any ingredient bin becomes empty during grinding.

Our summer poultry ration includes 1,275 pounds of corn and 725 of a concentrate mix; in winter we go to 1,360 pounds of corn and 640 of concentrate. The dairy ration consists of oats, corn, and concentrate — protein level is adjusted to fit the quality of roughage. Soybean oil meal is the basic protein ingredient for both poultry dairy rations, but we also use fish meal and alfalfa leaf meal in the hen feed.

There are various screens available for the hammermill; we use a 3/16" for everything. Feed goes by

a magnet after grinding to remove any stray metal.

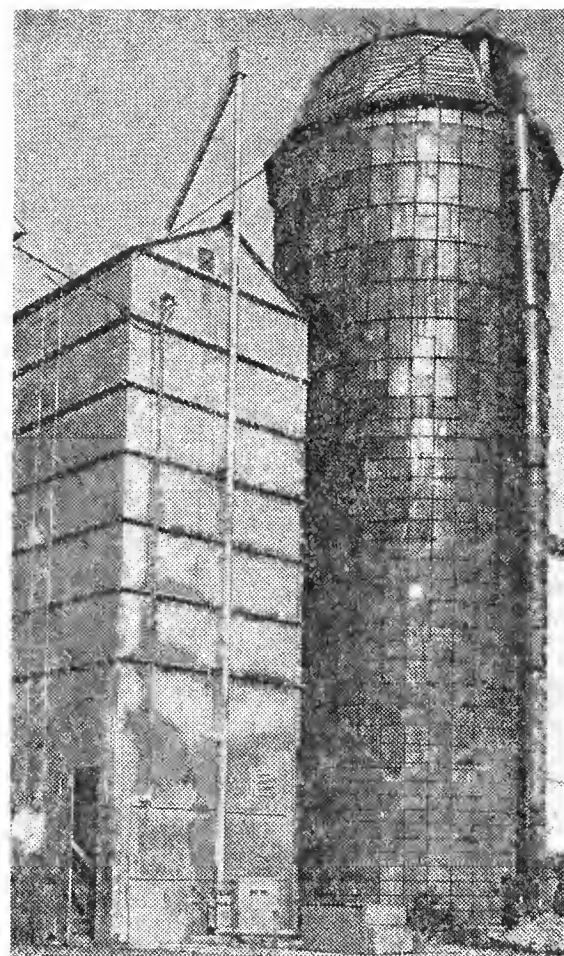
We buy most of our grain by trailer truck load out of Buffalo, but also get some from areas nearer to us. It looks as though the Finger Lakes region of the State may be a good bet for grain after we establish contacts there.

As advantages of this setup, we would list lower cost feed (for comparable quality), greater palatability because of freshly ground feed, and an increase in production of milk and eggs. It's one of the best investments we ever made.

We use DHIC recommendations as a guide for feeding our cows and re-

cently have been doing more lead feeding — feeding cows grain before freshening. Gains in milk production have been more spectacular than egg production, but we're very pleased with hen performance from our home-prepared feed.

As disadvantages, we'd have to cite the possibility of human error—we can't cuss the feed store anymore for making a mistake. We've had the experience of shoveling a batch of dairy feed out of the poultry feeder hoppers. All in all, though, we're happy with the arrangement and think that having his own feed setup is one way for a poultryman to stay independent and avoid integration. — *James Lane, Jr., Oncontu, New York*



Jim Lane beside his grain storage and handling setup. The silo at right is filled with corn silage.

WEED KILLER

I fully agree with Harold Hawley's comments on 2,4-D. We quit using it a couple of years ago when we started to use Atrazine. Last summer I saw a field that the owner said was sprayed with 2,4-D. In spite of cultivation, though, it was so weedy that the only way I knew it had been sprayed was his word.

I was never interested in one of those gadgets that bands granules. In the first place, we grow about 80 acres of corn and with a two-row planter that takes full time without adding another outfit to take care of —and you still have to cultivate between rows.

For the two years we have been using Atrazine, by the time the planting is done we are ready to start spraying at the rate of five acres an hour.

Since we now harrow only once before planting corn, the ground is loose. In spite of a serious lack of moisture this last summer, I think it will make one hundred bushels of shelled corn per acre.

For quack grass we have used

Amitrol the last three years. The first two years we got it on three weeks before plowing (two weeks is not enough in our area), and on fields that used to look like a meadow after four cultivations we got almost 100 percent kill.

This year I did not get my supply of Amitrol until such a short time before plowing that it was only applied two weeks before I had to plow. So I will have to do that field over.

My son has not used Amitrol much and has found where quack is not too serious that Atrazine not only checks it, but reduces it. I understand if you use five pounds of Atrazine it will kill quack, but you cannot plant small grain the next year. We found that to be true where the application rate was doubled at the ends of the field where spray equipment was turned.

Let me say without "blowing" that for four years in a row my son and I have had the two highest yields in this tri-county area in the State Five Acre Contest. Last year son Jim was highest with 157 bushels of shelled corn per acre. — *Hugh Fergus, Slippery Rock, Pa.*

FORAGE PROGRAM

We have only 20 cows, but the herd average is around 15,700 lbs. of milk a year. It was in a recent year that we finally broke through the 300,000 lb. mark on our annual production.

We have two silos — one 12' x 50' and another 12' x 30'. In 1963, we ran out of corn silage just about the end of August, so we fed greenchopped corn until silage was again available.

We have hay available the year around for our dairy herd and they also graze during the summer on pasture that is divided into strips so we can rotate them from one strip to another. — *Donald Lambert, Stanley, N. Y.*

FAR LIGHTER...

BUT TOUGH AND RUGGED

TAKE A LOAD OFF YOUR FEET!

STOP LUGGING HEAVY ARCTICS AROUND!

Tingley over-the-shoe Boots and Rubbers are 1/3 the weight of old fashioned lined rubbers. Molded in one piece—

they s-t-r-e-t-c-h on easily, and they fit snugly over your pants leg. Easily washed inside and out, they dry in a jiffy. "Bellows action" with each step gives air circulation and warmth. At shoe stores and departments and at farm stores.



KNEE-HI CLOSURE BOOTS

Featherlight but designed for heavy farm work in any weather. In rubber \$7.95, neoprene \$11.25.

10 INCH CLOSURE BOOTS

1 button (but 4 buckle height), no linings, no zippers, no buckles. In rubber \$5.99, neoprene \$9.35.

HI-TOP WORK RUBBERS

Take the place of heavy, clumsy 2 buckle arctics — no buckles or zippers. In rubber \$3.99, neoprene \$5.65.

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SOUTH PLAINFIELD 34, N.J. EST. 1896

CAN YOU FIND YOUR TINGLEY DEALER LISTED BELOW?

NEW YORK

ADAMS, Belloff's Dept. Store
Pacific Shoe Store
ADDISON, Phillips Shoe Store
AFTON, A. A. Mudge & Sons, Inc.
AKRON, Akron G.L.F.
ALBANY, Army & Navy Store—48 S. Pearl St.
Albany G.L.F.
ALBION, Orleans G.L.F.
ALEXANDRIA BAY, Tony Folino
ANDOVER, Vars Men & Boys Wear
ANGOLA, Matteson's Footwear Shop
ATTICA, Attica G.L.F.
AUBURN, Bennett & Tracy
Nolan's Brown Bilt
Liberty Shoe Store
Liberty Store
Auburn G.L.F. Farm Store
AVON, Avon G.L.F.
BAINBRIDGE, Bainbridge G.L.F.
Charles H. Eldred & Company
BALDWINVILLE, Winship Shoe Store
Joe Glass Family Shoe Store
BAMBRIDGE, Paltz Shoes
Kings Clothing Store
BATAVIA, Batavia Genesee Hardware
Batavia G.L.F.
BATH, Orr's Shoe Store
BELMONT, Belmont G.L.F.
BIG FLATS, Minier Brothers, Inc.
BINGHAMTON, Ward's Army & Navy
Binghamton G.L.F.
Dave Lewis Shoe Market
Fowler, Dick and Walker
Barron Shoe Shop
Norman Uniform
BLOOMVILLE, Bloomville G.L.F.
BOLIVAR, Fagouri's Mens Store
BREWSTER, Markoff Shoe Store
BRIDGEHAMPTON (L.I.), Bridgehampton G.L.F.
BRIDGEPORT, H. Ferstler
BUFFALO, Brownie's Army & Navy Store
CALLICOON, Frank Popolillo
CAMDEN, F. P. Emper
Williams Shoe Store
CANAJOHARIE, Schult's Shoe Store
Spannbauer's Shoe Store
CANASTOTA, Albanese Shoe Center
Aquino Shoe Store
Lou's Shoes
CANISTEO, Cleveland Sport Shop
Wambold's Clothing Store
CANTON, E. S. Barbour
Noble Shoe Store
Sol Kaplan Dept. Store
Grasse River G.L.F.
CATSKILL, A. R. Jones
CAZENOVIA, F. H. McLaughlin
J. C. Talbot Ben Franklin
Buyea's
CENTRAL SQUARE, Wink's Clothing Store
Shaw's Shoe Store
CHAFFEE, Wirthmore Stores
CHAMPLAIN, Champlain G.L.F.
CHITTENANGO, Waldman's Dept. Store
CINCINNATUS, Jackson Store
CLARENDON, Farmers Feed & Supply

CLYDE, De John's Shoe Store
A. Di Torio
COBLESKILL, Cobleskill G.L.F.
Rich's Mens Shop
Green's Shoe Shop
COOPERSTOWN, Van's Shoe Store
CORNING, Hudson Shoes
Van Slyke Shoe Store
Harold's Army & Navy
Carapelli Shoe Service
Clark's Shoe Store
Matson's Shoe Store
CORTLAND, George Bowker Shoe Store
Russell Fulmer Shoe Store
Sarvay Shoe Company
Cortland G.L.F.
DANVILLE, Perry's Shoe Service
DELHI, Delhi G.L.F.
DEPOSIT, Sunny's Store
DRYDEN, Carter Dept. Store
DUNKIRK, Boorady's
EAST HAMPTON, East Hampton Shoe
EDEN, Walter Gieger G.L.F.
ELMIRA, Savino Shoe Store
Dave Lewis Shoe Market
S & M Hersch Shoe c/o Rosenbaum's
Panosian's Shoe Store
The Bootery
Harold's Army & Navy
Winnick Army & Navy
ELMIRA HEIGHTS, Heights Shoe Store
ENDICOTT, Ken's Shoe Store
Chambers Shoe Store
Park Shoe Company c/o Burt's
FAYETTEVILLE, Pierce Shoe Store
FEURA BUSH, Raymond Vadney
FILLMORE, Fillmore G.L.F.
FORRESTVILLE, Wallace's Dept. Store
FORT PLAINS, C. G. Dutchers Shoes
Parr's Shoe Store
FREDONIA, Pomfret C. & E. Grape Growers
Co-op
FULTON, Joe Cortini
Lambienos
C. Siebel's Shoe Store
GAINESVILLE, Clifford Beaumont, Inc.
GASPORT, Lockport G.L.F.
GEORGETOWN, Georgetown G.L.F.
GENEVA, Di Duro's Shoe Repair
Super Army & Navy
Lester Millard
GLOVERSVILLE, Rossbach Shoe Co.
GREENE, Greene G.L.F.
GREENPORT, P. Brandi Shoe
GREENWICH, Greenwich G.L.F.
GROTON, Groton Feed Company
GOUVERNEUR, A. Carbone
Sol Kaplan Dept. Store
GOWANDA, Himelein & Co.
HAMBURG, Richardson Milling Company, Inc.
HAMILTON, Thomas Stradling
Mappled Shoe Store
HICKSVILLE (L.I.), G.L.F. Home & Gdn. Store

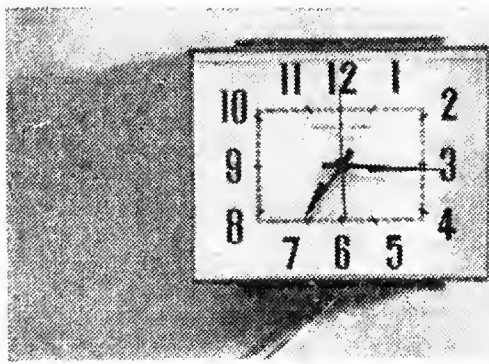
HOBART, Hobart G.L.F.
HORNELL, J. La Piana
DeGaetano Shoe Repair
Hornell G.L.F.
HORTONVILLE, Hortonville Grng. Co-op Asn
HEUVELTON, F. J. Ducett & Sons
HOMER, Homer Army & Navy
ILION, Wagner Shoe Store
ITHACA, A. Fontana
Van's Brown Bilt
Ed Scusa
Sturm Brothers
Ithaca G.L.F.
JAMESTOWN, Carnahan's (Shoe Dept.)
Ross Shoes
Arcade Shoe Store, Inc.
Brownbilt Shoe Store
KINDERHOOK, K.P.A. Cooperative
KING FERRY, Mitchell Farms, Inc.
KNOWLESVILLE, Knowlesville G.L.F.
LACONA, Reid's Dry Goods
LACKAWANNA, Jacob's Shoe Repair
LA FARGEVILLE, M. H. Bretch & Company
LEWIS, A. W. Benedict
LIBERTY, Liberty G.L.F.
LITTLE FALLS, Bauchy's Bootery
LIVERPOOL, Toni's Family Shoe Store
LIVONIA, J. C. Monte
LOCKPORT, Par's Shoes
LOWVILLE, Lowville Farmers Co-operative
LYONS, Paliotti Shoe Store
The Men & Boy's Shop
Boehem's Family Shoe Store
MADRID, Madrid G.L.F.
MALONE, The National Army, Inc.
MANLIUS, Leader's Shoe Store
MARGARETVILLE, Margaretville G.L.F.
MASSENA, Lavine's Depr. Store
MAYVILLE, Shearers Store
McGRAW, McGraw G.L.F.
MEDINA, Baughn's Shoe Store
MEDUSA, Ernest E. Bell Store
MEXICO, S. J. Ramsey
J. Tagliarini
MIDDLETOWN, Middletown G.L.F.
MILLERTON, The Millerton Store
MORAVIA, Jennings Dept. Store
Hughes Clothing Store
Moravia G.L.F.
MORRIS, Sloan's Farm and Home Co.
MORRISTOWN, Gilmour's Dept. Store
NEWFANE, F. Collins & Son
NEWARK, Marvin's Newark Bootery
Walk's Mens and Boys Wear
NEW PALTZ, New Paltz G.L.F.
NICHOLS, Nichols G.L.F.
NORTH CHILL, Higbie Farm Supplies, Inc.
NORTH COLLINS, North Collins G.L.F.
NORTON HILL, John Ver Planck
NORWICH, Sullivan's
Urwil's Shoe Shop
NUNDA, Nunda G.L.F.

ODESSA, Odessa G.L.F.
OGDENSBURG, Al's Mens Shop
Tony Milia
Rite Exchange
OLEAN, Lester Shoe Co.
Dehars Shoe Shop
United Surplus
Allens Shoe Store
ONEONTA, Zim's Shoes
Webb's Shoes, Inc.
Brady's Shoes
Schatzky's Shoes
OSWEGO, Vona Shoe Store
Modern Shoe Repair
Barry's Surplus Store
Cutro Shoe Store
Oswego G.L.F.
OWEGO, Langdon A & N Store
Owego G.L.F.
OXFORD, Coz's
Wirthmore Store
PAINTED POST, Benjamin Brown, Inc.
PALMYRA, Edwards Shoe Store
Wirthmore Stores
PATCHOGUE, Carl & Bob's
Richard York Shoe
PENN YAN, Penn Yan G.L.F.
PERRY, Lanckton's
Perry G.L.F.
PHELPS, Phelps G.L.F.
PHOENIX, George Colbert
PIKE, L. R. Wolcott
PLATTSBURGH, Bell Stores, Inc.
PORT BYRON, Kelly's
PORT HENRY, Bell Stores, Inc.
POTSDAM, The National Army, Inc.
Sam Kaplan Dept. Store
Sullivan Shoe Store
Robert's Shoe Store
Potsdam Bootery Shop
POUGHKEEPSIE, Dutchess Shoe Fair
PRATTSBURG, Graves & Cleland
PULASKI, Pacific Shoe Store
RANSOMVILLE, Leo Schultz G.L.F.
RED HOOK, Wilken Bros., Inc.
RIVERHEAD (L.I.), Carl & Bob's Outdoor Store
Villella Bros.
Suffolk G.L.F.
ROCK GLEN, Edward M. Davis & Co.
ROME, Herb Phillipson Army and Navy
ROXBURY, Roxbury G.L.F.
RUSHFORD, Bob's Dry Goods
SAG HARBOR, A. W. Basile
SALAMANCA, Mason's Shoes
Salamanca G.L.F.
SARANAC LAKE, The National Army, Inc.
SENECA FALLS, Seneca Boot Shop
Ceo & Rutz
SHERBURNE, D. K. Hodges
Pudney's Store
SHERMAN, Sherman Dept. Store
SIDNEY, Brooks Shoe Store
Sidney G.L.F.
SKANEATELES, W. P. Talbot
Roland's Men's and Boys' Shop
SODUS, Gardner's
SOUTHAMPTON, Southampton Outdoor Store
SPRINGVILLE, Brown's Shoe Store
Radial Shoes, Inc.
STAMFORD, Stamford G.L.F.
STANFORDVILLE, Walter L. Post G.L.F.
TICONDEROGA, Bell Stores, Inc.
TRUMANSBURG, Joe Wayrynesh Shoe Repair
TUPPER LAKE, The National Army, Inc.
VERNON, Vernon Army & Navy
VESTAL, Gerald S. Crane G.L.F. Service
WALTON, Walton G.L.F.
WASHINGTONVILLE, Washingtonville G.L.F.
WATERLOO, George McMahon
Jim Mazolli
WATKINS GLEN, Seneca Variety
Van Slyke Shoe Store
WATERTOWN, Murray Outfitters
Lewis Mens Shop
Max Alpert
WAVERLY, Jack Medalie
WAYLAND, Wayland Feed & Farm Supply
WELLSVILLE, Ludden Shoe Store
WESTFIELD, Carnahan-Shearer Co.
C. F. Pratt Co.
WEST ONEONTA, West Oneonta, G.L.F.
WHITESVILLE, Whitesville G.L.F.
WHITNEY POINT, Barnes Gift Shop
Whitney Point G.L.F.
WILLIAMSON, Arthur Pickett
WILLIAMSVILLE, Vincent's G.L.F.

NEW JERSEY

BELVIDERE, Earl J. Mack
BERNARDSVILLE, J. Mastro
BLAIRSTOWN, J. C. Roy & Sons
BRIDGETON, Bridgeton G.L.F.
Pete's Mens & Boys
BURLINGTON, Bernies Mens & Boys Store
CAMDEN, Garden State Surplus
CLINTON, North Hunterdon G.L.F.
Charlie's Bootery
DOVER, Walk Well Shoes
FLEMINGTON, Hunterdon G.L.F. Service
Arkay Dept. Store
FREEHOLD, Als Bootery
HACKETTSTOWN, Tickner's Farm Supplies
HAMMONTON, Garabasi Shoe
LAKEWOOD, White Oak G.L.F.
Rabb Army Navy Store
LITTLE FALLS, Little Falls, G.L.F.
LONG VALLEY, Fred March
MORRISTOWN, Allens Workingmans Store
Morristown G.L.F.
MT. HOLLY, Burlington Co. Farmer Co-op.
Jax Army & Navy Store
PLAINFIELD, Globe Shoes
Van Arsdale
PLEASANTVILLE, The Hub
Nick Fazio
PRINCETON, Tween-Age Shoes
SALEM, Salem G.L.F.
SOMERVILLE, Marty Orshin
SUSSEX, Sussex G.L.F.
Fineblooms Shoes
TOMS RIVER, Phillips Shoes
TRENTON, Purcell Shoes
VINELAND, Silverman's Mens & Boys
Forlan's Shoe
WHITEHOUSE STATION, N. J. Sheep Breeders
Store

FOR STORMY WEATHER PROTECTION... "NOTHING TAKES THE PLACE OF RUBBER"



Two Essential Harvesting Tools!!



Your clock and radio are two essential harvesting tools. From the day the first field of early-cut hay is mowed in unpredictable May, through the day the last field of late-maturing corn for grain is picked in blustery December. And that same hardy harvest help is at your finger tips for every crop from Apples to Zinnias.

Your best radio guide to good harvesting weather is WEATHER ROUNDUP at 6:25 and 7:15 A.M.; 12:15 and 6:15 P.M., over these stations.

FM STATIONS

Auburn	WMBO-FM	96.1 mc.
Binghamton	WKOP-FM	99.1 mc.
Bristol Center-Rochester	WMIV-FM	95.1 mc.
Cherry Valley-Albany	WJIV-FM	101.9 mc.
DeRuyter-Syracuse	WOIV-FM	105.1 mc.
Hornell	WWHG-FM	105.3 mc.
Ithaca-Elmira	WEIV-FM	103.7 mc.
Jamestown	WJTN-FM	93.3 mc.
Niagara Falls-Buffalo	WHLD-FM	98.5 mc.
Olean	WHDL-FM	95.7 mc.
Wethersfield-Buffalo	WBIV-FM	107.7 mc.

AM STATIONS

Auburn	WMBO	1340 kc.	Olean	WHDL	1450 kc.
Binghamton	WKOP	1360 kc.	Remsen	WREM	1480 kc.
Boonville	WBRV	900 kc.	Rochester	WROC	1280 kc.
Dunkirk	WDOE	1410 kc.	Salamanca	WGGO	1590 kc.
Elmira	WENY	1230 kc.	Saratoga		
Glens Falls	WSET	1410 kc.	Springs	WSPN	900 kc.
Gloversville	WENT	1340 kc.	Sayre, Pa.	WATS	960 kc.
Hornell	WWHG	1320 kc.	Schenectady	WGY	810 kc.
Ithaca	WTKO	1470 kc.	Syracuse	WHEN	620 kc.
Jamestown	WJTN	1240 kc.	Syracuse	WOLF	1490 kc.
Niagara Falls	WHLD	1270 kc.	Utica	WBVM	1550 kc.
			Walton	WDLA	1270 kc.

Northeast Radio Network

Ithaca, New York



FARM DOLLAR GUIDE

PROSPECTS FOR MILK PRICES IN NEW YORK-NEW JERSEY MARKET are a bit better for winter months. Fluid consumption for first nine months of '63 was up 2.9%. Production was up slightly until September; since then has been below last year. Nationally, milk production was below '62 every month for first nine months. In New York State on September 1 dairymen were milking about 42,000 fewer cows than a year ago.

TO HELP GROWERS MARKET 1963 POTATO CROP, USDA plans to encourage diversion to starch, potato flour, and livestock feed by a diversion payment of 50 cents per cwt. through December 31; 40 cents to February 29; and 30 cents after March 1, '64. Payments are available only in states where industry has plan to provide best part of crop to consumers.

THE 1964 GOVERNMENT FEED GRAIN PROGRAM is essentially the same as the '63 program. One change—a farmer can divert as much as 50% of his base feed grain acreage (40% in '63) and get diversion payments at maximum rate for all acres diverted. If you want full details, go to your county ASC office.

CHRISTMAS TREES and other holiday greens must be inspected for gypsy moth before they can be shipped out of areas under Federal quarantine. Now under quarantine are all of Connecticut, Rhode Island, and Massachusetts, most of New Hampshire and Vermont, and parts of Maine and New York.

MORE COWS OR BETTER COWS to improve farm income? Many farm economists say better cows should come first. DHIA figures show it takes 81 cows averaging 8,000 lbs. of milk for yearly return of \$10,000 over feed costs.

But it takes only 43 cows averaging 12,000 lbs. for the same return—and only 30 cows averaging 16,000 lbs. There are other advantages—less labor, less investment, less cash expense, less surplus milk to depress prices.

CONSULTING A TAX EXPERT before you file your farm income tax return may pay big dividends, especially if income is over one-third higher than average for past four years.

CLOSE FIGURING OF YOUR FEED INVENTORY AND REQUIREMENTS can save money. The East is reported as short of roughage. If you will need hay begin looking now; concentrate prices will likely be higher than in '63.

Also look ahead to '64 which might be another dry year. Many dairymen report alfalfa and corn as their best roughage crops for generally dry '63.

The Song of the Lazy Farmer



"I DOUBT that I will ever see a man who rates more sympathy than my poor ailing neighbor does; he almost makes me cry because he don't know how to use his wealth to keep himself in decent health. He never does a single thing except for work and worrying, so his resistance never grows and he's beset by constant woes. His blood is thin, his teeth are bad, his back and head both ache like mad; his liver's weak, his poor heart thumps, he frets so much his ulcer jumps; perpetually his juices stew, he's never free of cold or flu.

Whene'er I see him, he complains about his list of aches and pains; then he gets mad 'cause I don't say how sad I am he feels that way, he fusses 'cause I'm feeling good and tell him how he also could. There's nothing hard 'bout keeping fit, there ain't no mystery to it; you just work less and rest

lots more so germs won't dare to start a war. It's toil that makes your muscles pain, it's thinking that inflames your brain. It's worry over silly things that makes your tummy turn handsprings; a horizontal back feels fine and sleeping keeps your heart in line.

Caribbean Holiday



IT MAY SEEM quite a ways off to February when our Caribbean Cruise party will leave Port Everglades, Florida, but some of our friends are already making definite plans for this delightful trip. Again, the Travel Service Bureau of Needham, Massachusetts, will direct the cruise for American Agriculturist, and we will relax for two enchanted weeks, visiting five Caribbean Islands and Cristobal in the Canal Zone.

The exact dates for the cruise will be February 24 to March 10, 1964, and we invite you to come with us and enjoy all the pleasures of this delightful vacation in the lands of eternal summer. Our ship will be the luxurious Queen of Bermuda which is completely air conditioned, with smart, spacious staterooms, each having private bath and ample closet space. Its beautifully decorated lounges, delicious meals, and expert services make it the perfect cruise ship. And since we're sailing from Florida, directly into the blue Caribbean, a smooth voyage should be assured us all the way.

An added feature of our Caribbean Holiday is a complete circle tour of Florida for those who may not have had an opportunity to see the Sunshine State. On this optional tour, we will visit Silver Springs, Orlando, Bok Singing Tower, Cypress Gardens, St. Petersburg, Sarasota, the Everglades, Miami, Daytona Beach, and St. Augustine.

On our cruise, the six land sight-seeing trips will show you some of the most fascinating places in those islands where Christopher Columbus first set foot in 1492. You will feel as if you are on a voyage of discovery yourself, for you will see breathtakingly beautiful lands, colorful people, and hear foreign tongues.

This time we will visit the free port of St. Thomas in the Virgin Islands, where you'll find bargains galore; Barbados with its silvery beaches; Martinique where French and African traditions blend and where the temperature varies only five or six degrees all year; the Dutch island of Aruba, completely different from all the others; Jamaica, one of the largest and most beautiful islands in the British West Indies, and perhaps most fascinating of all, the Panama Canal.

When we visit the Canal, our ship will dock at Cristobal and wait for us there while we make an excursion across the Isthmus to Panama City. Enroute, we will visit the famous Gatun Locks where a special lecturer will describe the actual operation of the Panama Canal. We will see Culebra Cut and Contractor's

Hill along our route . . . and from old Panama we will view the Pacific Ocean, just as Balboa did in 1513.

On all of our land stops, there will be time for that favorite occupation of Caribbean cruisers—shopping for tempting foreign goods and souvenirs at bargain prices!

Don't let this perfect winter vacation pass you by! Whether you're interested in the complete Holiday, or in just the Caribbean Cruise, we urge you to fill out the coupon on this page and mail it today. We'll send you a copy of the day-by-day itinerary which includes a plan of the ship and full information about costs. Decide now to come with us. You'll enjoy every moment and always be glad you went.

California Tour

We have room for a few more people on our tour to the Southwest and California (January 18 to February 9). If this trip appeals to you more than the cruise, there's still time to make your reservation — if you hurry! Just check the coupon below, and we'll rush the printed, illustrated folder to you.

A. James Hall
American Agriculturist
Box 367-T
Ithaca, New York

Please send me, without obligation on my part, the following tour itineraries:

Caribbean Cruise ———
Southwest Holiday Tour ———

Name _____

Address _____
(Please print)

CHARGED DUST

AN electrostatic duster has been developed that uses from 4 to 10 times less insecticide and gives equal or better insect kill.

The apparatus is the result of research done at Michigan State and at North Carolina State College. The Electronics Division of Electric Motor & Transformer Co., Raleigh, North Carolina, undertook to develop the apparatus, with help from the agricultural engineering group at North Carolina. After hours of testing in the laboratory and in the field, installations were made on several North Carolina farms—and successful tests have also been conducted by the USDA at their Everglades Experimental Station in Florida.

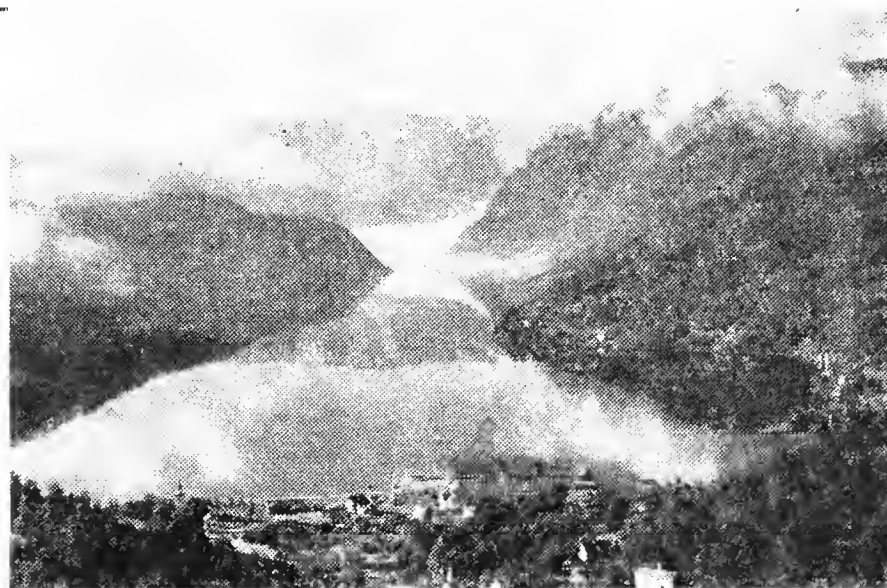
The system of controls is similar to that used for smoke control in industrial areas and for the purification of the air. In the case of insecticides, a cloud of charged particles is blown out, attracted to the plant in much the same way that iron particles are drawn to a magnet. Even the undersides of leaves, stems, and the like receive a definite dosage, and because of the electrostatic charging, very little is blown off in the air—thus almost eliminating drift, even in high winds.

In addition to the field dusting apparatus, the principle has been applied to all methods of distributing insecticide dusts — hand-operated, electrically-operated, and gasoline-powered knapsack dusters — and work is going forward toward its application to dusting by airplane.

ENJOY SPRINGTIME IN SCANDINAVIA

**American Agriculturist Tour,
MAY 27—JUNE 30**

under the direction of Travel Service Bureau



Springtime in Scandinavia—a sparkling world of fairy-tale towns, majestic fjords and mountains, idyllic countryside rich in folklore, lakes by the thousands and modern cities. Scandinavia is at her brightest, sunshiny best in June. All Scandinavia is covered with a lush flower-sprinkled carpet of green. Storks make their way up from southern climes to nest on the chimney tops of Denmark's picture-book houses, and nightingales sing their Springtime melodies.

You're sure to enjoy Springtime in Scandinavia on this 35-day tour; you'll cross on the RMS Queen Mary and return on the Queen Elizabeth. For full itinerary and cost, mail coupon today. There's no obligation.

From the magnificent fjords of Norway to the modern city of Copenhagen, (home of The Little Mermaid from one of Hans Christian Andersen's most beloved and famous fairy tales, whose statue, in the port of Copenhagen, welcomes visitors from all over the world) you'll long remember your Springtime in Scandinavia when, all around the clock, the sun brightens these delightful lands and night never seems to fall in the capitals or main cities.

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TSB



American Agriculturist Tours
Department S-5
Travel Service Bureau
60 Dedham Avenue
Needham 92, Massachusetts

**FREE
TRAVEL
BOOKLET**

Send me complete information on the American Agriculturist-TSB Scandinavian Tour, May 27-June 30, 1964.

NAME _____

ADDRESS _____

CITY _____ STATE _____

Please print

New York Annual Meetings

Dairymen's League—Glenn Talbott, Hume, New York, was re-elected president of the Dairymen's League Cooperative Association at the organization's 44th annual meeting. Mr. Talbott will be serving his third term as president.

Also elected to the executive committee were: Lester W. Martin, Milford, New York, first vice president and secretary; Eugene J. Vandenberg, Delancey, New York, second vice president, succeeding Jennings D. Pickens of Lawtons, New York, who retired; Milburn J. Huntley, West Winfield, New York, treasurer; James R. Donnan, Galway, New York, assistant treasurer; and Rus-

sell E. Dennis, Penfield, New York. Two new directors elected were: Phillip Schuyler, Lawyersville, New York (succeeding retiring director Grover C. Guernsey, Schoharie), and Lloyd R. Dysinger, Gasport, New York, who succeeded Jennings Picken as director in Erie, Niagara and Orleans counties.

The resolution that kicked up the most fuss was one calling for "legislation or administrative regulations which will discourage the operation of farms for tax loss purposes." It was felt by those proposing this resolution that at least part of the agriculture surplus comes from "hobby" or part-time farming

entered into by non-farmers for the purpose of accumulating tax losses. It was pointed out by opponents that advancements in the breeding of livestock have often taken place on these "hobby" farms. The resolution passed by a considerable majority. **G. L. F.** — Seven farmers were re-elected to the board of directors of the Cooperative G. L. F. Exchange at the 43rd annual stockholders meeting in Syracuse, which was attended by 2,700 members.

Renamed to two-year terms on the board were G. L. F. president J. C. Corwith, Water Mill, New York; vice president Clifford E. Snyder, Pittstown, New Jersey; Roy S. Bowen, Wellsboro, Pennsylvania; Harold L. Creal, Homer, New York; Milburn J. Huntley, West Winfield, New York; Harold G. Soper, Geneva, New

York; and Clayton G. White, Stow, New York.

Director Orrin F. Ross, Lowville, New York, retiring after 12 years on the board, received a plaque recognizing his contributions to G. L. F. His successor is Roy C. Temple, Spragueville, New York.

It was reported that in the fiscal year ended June 30, the G. L. F. completed the biggest volume year in its history, with sales of \$206 million and earnings of nearly \$6 million. Two milestones were the production of the 25 millionth ton of G. L. F. formula feed, and delivery of more than a million tons of mill-mixed feed during the year.

N. Y. A. B. C.—Delegates representing 40,000 members attended the 23rd annual meeting of the New York Artificial Breeders' Cooperative at Ithaca.

Directors elected for three-year terms included: George Rich, Franklin; Harold N. Harter, Jordanville; Erton Sipher, Gouverneur; and Alex Rabeler, Sr., Bovina Center, as director-at-large. Officers elected: president, Glenn P. Widger, Ellicottville; vice-president, Douglas R. Stanton, Greenville; secretary-treasurer, Erton Sipher; and assistant secretary-treasurer, Charles J. Krum, Ithaca.

The highlight of the evening program was recognition to retiring president J. Stanley Earl of Unadilla. Mr. Earl has served as a director of NYABC since 1941, and as its president for the past 17 years.

New York State Grange—At its four-day annual session the organization adopted almost 90 major resolutions to guide its 90,000-member rural family in the year ahead. The resolutions covered every phase of rural living and legislation — farming, schools, strikes, medical care, legal age for intoxicating beverages, welfare, etc.

The annual meeting ended with the installation of officers as follows:

Russell S. Curtis, Cazenovia, was re-elected Master. Other members of the executive committee are: Leonard Fuller, Edwards, chairman; Leland D. Smith, Brasher Falls, committee secretary; Edmund H. Marvin, Sr., Macedon; Robert S. Drake, Woodhull; and Morris J. Halladay, Groton.

Farm Bureau—Speaking at the annual meeting of the New York Farm Bureau in Utica, E. M. Norton, Secretary of the National Milk Producers Federation, called upon New York dairy farmers to support and take an active interest in the operation of cooperative marketing organizations, pointing out that farmer cooperatives are "the greatest economic tool available to farmers."

Since the American Agricultural Marketing Association (an affiliate of the American Farm Bureau Federation) was established in January, 1960, 23 state Farm Bureaus have organized marketing associations to assist growers in building their marketing power. Producers of tomatoes and apples for processing were first to request the service, and the list now includes producers of asparagus, broccoli, lima and snap beans, sweet corn, and green peas.

William E. Bensley of Springville was re-elected president of the organization, and Robert Greig, Red Hook, was re-named vice president. The other officers and directors remained the same except for the replacement of Walter Moore, Cazenovia, by Robert Everingham, Lafayette, and Lawrence Du Bois, Valatie, by Keith Johnson, Oneida.

YOUR GLF PETROLEUM REPORT

- the new GLF Diesel Fuel—what users say about improved power, engine efficiency
- || two new GLF Multi Service Greases—for a wider range of tractor use



GLF Diesel Fuel pulls five 14" plows at one gear higher

Mr. William Coles, dairyman of Monroeville, N. J., says "GLF Diesel Fuel brought our tractors to life. It has allowed us to pull five 14" plows at one gear higher than previous fuels we've used. In fact, we could discover no difference in the performance of diesel fuels—until we tried GLF."

GLF Diesel Fuel additives increase power, engine efficiency

One of the additives in the new GLF Diesel Fuel is Amyl Nitrate, a chemical that causes the fuel to ignite at regular intervals, and at the right time.

Without this additive, diesel fuels tend to explode a little early and/or a little late, either when the piston is not yet up to the top of its stroke, or when the piston is past its peak, and on the way down. Thus, piston strokes are weak, the engine loses power, and burns excessive fuel.

Absolutely no injector trouble with GLF Diesel Fuel...

says George Ulrich, owner of the Malt Beverage Express at South Lima, N. Y. "We previously had considerable trouble with fuel injectors in our fleet of trucks. None since changing to GLF Diesel Fuel. Smoke has been reduced and we notice that our engines now develop full power."

The Injector Lubricant Additive in the new GLF Diesel Fuel keeps injectors free from deposits. These deposits build up fast when no Injector Lubricant is used. (An injector which is even partially clogged with deposits will "dribble" some of the fuel into the chamber, causing a smoky exhaust from incompletely burned fuel. This leads to higher fuel bills and loss of power.)

No starting problems

Mr. Ulrich says, "In the last 11 months we've used 60,000 gallons of GLF Diesel Fuel. During winter operations, we've experienced no starting problems. It's the best all round diesel fuel we've ever had."

New GLF Multi Service Greases

Two new automotive greases have been added to the GLF line. They are designed for specific and particular grease requirements.

GLF Multi Service Grease #1 has a body density that is right for year-round weather conditions, tight-fitted bearings. It is a high quality grease made with high grade oils, and has extremely good resistance to pounding.

GLF Multi Service Grease #2 is denser in body than #1... to be used in worn or loose-fitted bearings such as universal joints, water pumps and wheel bearings.

Ask your GLF Petroleum man to help you select the grease that will perform best for you.

Make sure your tractor runs right when you need it. Get all of your diesel supplies from GLF. GLF diesel fuels and oils are made to give your tractor more power, higher operating efficiency, and longer life. Cooperative GLF Exchange, Inc., Ithaca, N. Y.



PETROLEUM PRODUCTS & SERVICES

It's New



John W. Jack, marketing research associate at Cornell University, and Mrs. June M. Darfler, food technologist, show the "sausage-shaped" eggs which they are labeling. Each "sausage" is actually four eggs, hard-cooked within a thin plastic casing—ready to slice for salads, sandwiches, garnishes, etc.

New Tomato Herbicide — The Amchem Company, Ambler, Pennsylvania, has recently announced a new herbicide for transplanted tomatoes named "Vegiben." It is active against a wide range of annual broadleaves and grasses, has a fairly long active life in the soil—but not long enough to present a hazard to fall cover crops.

The compound is available as a 10% granular material (only the granular form is safe on tomatoes). It is suggested for trial at rates of 3 to 4 pounds active Vegiben per acre—this requires 30 to 40 pounds of the formulated 10% granular material.

Breaking Dormancy — By treating dormant bulbs for 10 to 15 minutes with radio frequency waves of a specific frequency, engineers at the New England Institute for Medical Research, Ridgefield, Connecticut have broken dormancy in gladioli bulbs.

More Apples — Experiments at Cornell University with growth regulators on apple trees have brought interesting results. For example, a compound called maleic hydrazide sprayed on McIntosh, Delicious, and red-strain Northern Spy increased the number of flower buds.

Triiodobenzoic acid (the scientists call it TIBA) caused a significant increase in flower bud formation (for bloom the following year) when sprayed on mature Baldwin trees in early June for two seasons. However, this same spray used on Rhode

Island Greening trees gave no evidence of increased flowering the year following the treatment—and used as a thinning spray on red-strain Northern Spy TIBA had no influence on flower-bud formation.

Polyunsaturate — Now it has come to eggs. In Salt Lake City, Utah, eggs with "a significantly altered" fat content were made available the week of September 23. A special combination of ingredients in the chicken feed causes an increase in the proportion of polyunsaturated fats in the egg yolk, said Edward W. Priebe, Jr., egg industry consultant to Drew Foods of New York. The ingredients were identified as "pure, natural, vegetable substances."

Save Your Cherry Pits? — Maybe you will sometime. At any rate, researchers at the University of Wisconsin have found that the pits make excellent charcoal briquets.

The process used was similar to that with wood. The pits were dried for one to two hours at a temperature of 338 degrees. Then they were put into a retort and heated up to 932 degrees (oxygen excluded). They carbonized into briquets! But there are economic questions still unanswered before this can become common—so don't expect to be buying cherry pit briquets for a while yet.

Partially Eliminated — The beekeepers' most frustrating problem

with insecticides, that of the lingering surface residue that can be carried back to the colony, is believed to be nearer elimination with the new systemic insecticide Ortho Phosphamidon 4 spray, which has just been released by the California Chemical Company.

According to the company's research and marketing divisions, extensive tests have proved that the spray is not hazardous to pollinating insects in a treated area.

The big factor is the fact that Phosphamidon is absorbed quickly. If application is made in the early morning, for example, it will be absorbed into foliage before the bees begin their activity, and therefore harmless to them.



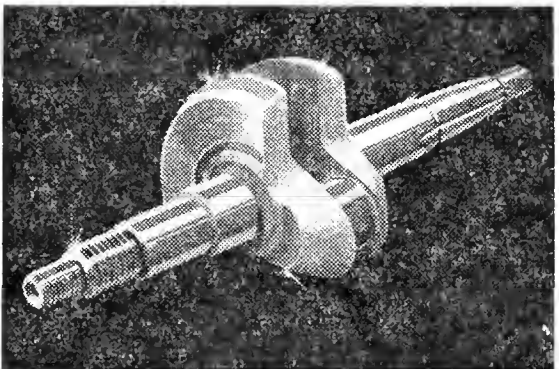
NEW 1964 Remington CHAIN SAWS

SUPER 770. 5.4 cu. in. displacement; thumb paddle oilers, left and right hand; soft rubber grip; roller sprocket. A real professional!

- **Longest-lasting crankshaft ever made!**
- **Bearings (not bushings) where bearings should be!**
- **Power-boosting roller nose (at no extra cost)!**

You owe it to yourself—and your pocketbook—this year to look at Remington's new 1964 chain saws. Tough, powerful, and trouble-free, they can save you time and money in the long run. Here's why—

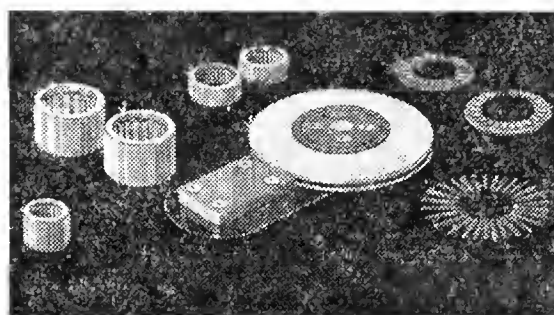
No chain saw is any tougher than its crankshaft. This is where the stress and strain of heavy cutting is felt the most. To eliminate the inconvenience and lost time due to breakage, Remington uses a free-



floating crankshaft supported by roller bearings. The result is the toughest, longest-lasting crankshaft in any chain saw, so tough, in fact, that if it fails because of defective materials or workmanship *any time during the life of the saw*, Remington will replace it at *no cost!*

To make the saws even tougher and to give them hundreds of extra hours of running life, all Remington saws are equipped with friction-free pistons and a chrome-plated cylinder, which greatly reduces wear.

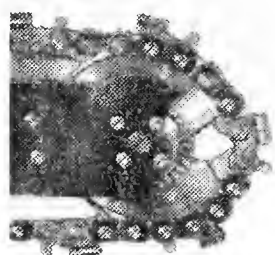
Bearings are another important item to examine. Are bearings, or less-expensive bushings, used at crucial friction points? No matter what position a Remington saw is used in



—upright, on its side, or upside down—the moving parts revolve smoothly on bearings—not on a plain bushing or the housing!

There are roller thrust bearings, for example, on the crankshaft to keep it free of friction while operating on its side. Many ordinary chain saws use only bushings! Remington also has roller wrist pin bearings on every model.

In Remington's patented roller-nose guide bar alone, there are 34 big roller bearings. This not only boosts cutting power up to 20%, but also reduces friction to increase the life of the sprocket and guide bar. The roller nose, of course, is stand-



Cutaway view of roller nose.

ard Remington equipment at no extra cost.

Remember, almost any chain saw, when new, will do a creditable job of cutting in a test lot. The differences don't show up until later. To get the whole story of Remington quality, just see your Remington dealer or write to address below. You'll be glad you did!

Remington



OUTCUTS, OUTLASTS 'EM ALL!

As low as **\$154⁹⁵***

with 12-inch roller nose bar

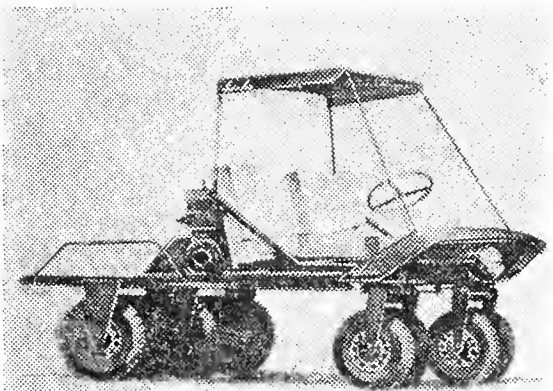
[Roller nose is standard equipment at no extra cost. Also 3-piece Tool Kit included free!]

Occasional users—See Remington's Bantam Special with solid bar

for only **\$149⁹⁵***

Remington Arms Company, Inc., Power Tools Dept., 25000 S. Western Ave., Park Forest, Ill. In Canada: Remington Arms of Canada Limited, 36 Queen Elizabeth Boulevard, Toronto 18, Ontario.

*Manufacturers' suggested retail price.



This new jeep-type workmobile can operate on almost any type of terrain. It is available with or without the top and with two or three seats, and is reported as cheap to operate, and easy to care for. Manufacturers are My-On Products, 1435 S. La Cienega Boulevard, Los Angeles 35, California.

American Agriculturist Foundation Winners

BY ISA LIDDELL

IN READING over the reports sent in by teachers of agriculture and homemaking in connection with our annual American Agriculturist Foundation Award project, it interested me to note that among the outstanding characteristics listed for these young people are willingness to take on more than their share of responsibilities, doing well the jobs assigned to them, honesty and loyalty—all earmarks of good citizenship.

The plans and ambitions of the boys and girls vary as much as do their enterprises. One young vo-ag student, winner of the FFA Empire Farmer Award, plans on training for missionary work in South America; another wasn't raised on a farm—nor does he live on one now—yet farming has always held his interest, and he has worked on farms in preference to other kinds of work. His teacher describes him as "quiet, conscientious, dependable—above all, a gentleman."

Their projects cover everything from rabbits and raspberries, engineering projects, purebred dairy animals, forestry, bees, horses, tobacco, vegetables, landscaping, etc., with total net worth sometimes as high as \$3,000. Best of all is the knowledge that many of the boys plan to join their fathers on the home farms after further training.

As for the girls, their plans include nursing careers, fashion designing, interior decorating—and being better homemakers because of their training in home economics.

It would take a whole issue of American Agriculturist to tell the story of what all the young people who won the Foundation Award this year are doing. That isn't possible, of course, so we have picked out just a few from over the Northeast who exemplify them all.

Agriculture

At SOUTHERN JUNIOR-SENIOR HIGH SCHOOL, LOTHIAN, MARYLAND, the choice fell on Eugene W. Wayson, Jr., who found his vocational agriculture program so engrossing that it helped him overcome his tendency to poor behavior. Now he has an outstanding record in his farming program, and a fine scholastic record in all courses.

A faculty committee at NORFOLK COUNTY AGRICULTURAL SCHOOL, WALPOLE, MASSACHUSETTS, picked William John Heller as the boy who has shown the most progress both academically and socially during the years at the school. He conducted a successful home garden project, was employed by a landscape gardener in his home town, and also worked on a large estate. He has been most active in FFA work, and at the State convention was elected chaplain of the Massachusetts Association FFA. Bill plans to continue study in ornamental horticulture and landscaping.

Joe Maimone is chapter president of FFA at HAMMONTON (New Jersey) HIGH SCHOOL. He feels that the most important thing he has learned is record keeping. He kept accurate records of his projects with raspberries and asparagus, and also while helping a farmer harvest peaches.

For the past three years, since his father's death, Sterling Hurd (a junior at ALFRED-ALMOND (New

York) CENTRAL SCHOOL) and an older brother have operated the 400-acre family dairy farm. There are 35 cows in the herd, on DHIA test records. During those three years, a bulk tank, barn cleaner and new silo have been installed, the stable remodeled for more cows and larger stalls. His brother has been in college part of the time, so Sterling has had a big part in the farm operation. For recreation, the Hurds breed, train and show quarter horses!

Francis Day, PHELPS (New York) CENTRAL SCHOOL, holds the Empire Farmer degree, and in addition to his farming program of 1½ acres of hybrid corn, 2 grade Holsteins and 4 Holstein heifers, did a complete job of soil sampling on the farm for three years for an all-analysis test, kept a farm inventory for three years, and a record of receipts and expenses for a year. He found time also to be on the Varsity football squad for three years, and was manager for a year.

NORTHSIDE HIGH SCHOOL, CORNING, NEW YORK, is proud of the achievements of Stanley A. Manning, Jr. Stanley has a dairy enterprise that exceeds \$3,000 in inventory value, and has also shown extraordinary ability in designing and constructing original pieces of equipment, such as the air compressor he and his brother built using an old engine and other old parts. His

activities in FFA work brought him the Chapter Star Farmer medal last year, an honor rarely won by a junior.

At SOUTHERN JOINT HIGH SCHOOL, GLEN ROCK, PENNSYLVANIA, Clarence Nace is described by his vo-ag teacher as a high-ranking student both academically and in vocational agriculture. Clarence has carried 22 projects during his four years in crop and livestock projects such as corn, oats, wheat, sheep, steers and poultry. He and his father operate a 175-acre farm, operate a sawmill, and do custom work for other farmers. And because his father is "getting up in years and needs my help at home" Clarence is willing to give up his dream of further training at college.

Stephen White was selected by BELLOWS FREE ACADEMY, ST. ALBANS, VERMONT, because he showed more improvement than any other vo-ag student in the department. His teacher wrote us: "Steve really blossomed this year. He showed more interest in his school work, improved his grades, increased the size of his dairy herd, and kept better records than ever before."

From MIDDLEBURY (Vermont) UNION HIGH SCHOOL the report says: "There was an impossible decision between two boys, so the Award was given to both. They are Leighton Wilcox and Gilbert Wideawake.

Gilbert has shown repeated examples of extra effort, best shown by a speech entry in a Lions Club contest on how his FFA experience had assisted him in developing citizenship attitudes. Leighton has developed a fine personality which allows him to exert leadership in its best form—from the sidelines. His sacrifice of a local office allowed another boy to develop greatly and attain experiences which he might well have missed."

Homemaking

At BLADENSBURG (Maryland) SENIOR HIGH SCHOOL Joyce Calow was the recipient of the Foundation Award. Joyce is described as an all-around student of high individual achievement, always willing to help others. In addition to class work and clubs, she has helped in the school infirmary, serves as a volunteer at Prince George's General Hospital, and on Sundays works in the Church nursery. Joyce plans on a career in home economics, possibly in the field of interior decoration.

Two students shared the Award at SOUTHERN HIGH SCHOOL, OAKLAND, MARYLAND. Nina Louise Bell graduated in June and plans to work for a year before marriage. It was not easy for Nina to stay in school; she earned every cent of her expenses by working from 4:00 until 9:30 week nights and from 9:00 a.m. until 9:30 p.m. Saturdays and Sundays, with only one night a week off and every other Sunday morning for Sunday School. As her teacher says: "Nina learned to make every minute count!"

Janet Ann McCrobie, her co-winner, also a senior, was married in August. She made her lovely lace wedding gown in class, and modeled it in the Spring fashion show. Janet comments: "The years in school have been happy and good ones for me."

Elaine Hurd, FALMOUTH (Maine) HIGH SCHOOL, got a part-time job this past year, and really began to realize her worth. It helped her to take pride in her home economics work and in her appearance, and she worked hard at making a fine wool suit for Easter and other clothes to fit her new personality.

Carol Klee, BARKER (New York) CENTRAL SCHOOL, one of a family of seven children, thought of dropping out of school last fall to get married, but decided that her diploma and further study were important. Mrs. Dickerson, her teacher, says that making this decision was a big turning point in Carol's life. After that she was eager to absorb all that she could to make her marriage—which took place in July—a success, and took on a lot of responsibility.

MILFORD (New York) CENTRAL SCHOOL chose Patricia Barlow for the Foundation Award. Patty lives on a 380-acre farm which has 95 head of registered Holsteins. She and her sister raise all the calves, usually around fourteen of them a year. Patty was a senior, and had been active in Student Council, athletics, on the yearbook staff and in French Club, and played the flute in the school band for six years. In addition, Patty is a 4-H member with projects in calves, horses, sewing and cooking, and has been riding and

(Continued on Opposite Page)



Cheryl MacKenzie, winner at Palmer (Massachusetts) High School.



Wanda Johnson, winner at Altona (New York) Central School.



Stella Leszek, winner at Saegertown (Pennsylvania) Area High School.



William J. Heller, Norfolk County Agricultural School, Walpole, Massachusetts.

Charles Lamb (right) Falconer (New York) High School, and his friend Leon Beightol, working on a front end manure loader in the school shop.



Francis Day, Foundation winner at Phelps (New York) Central School.



(Continued from Opposite Page)

showing horses since she was four years old.

The homemaking teacher at SUF-FERN (New York) HIGH SCHOOL describes Michelle Bartlett as "having a keen sensitivity to the needs and welfare of other people, and exemplifying good citizenship at home and in the community. Miss Parrott says that Michelle has been an inspiration to others in her classes and in her home.

Diane Erno, winner at MILTON (Vermont) HIGH SCHOOL, has discovered some very important truths during her home economics training. She says: "I have learned how important it is to manage one's time, plan a budget, and be a good consumer. In group work I have learned how to cooperate, get along with all types of people, and the importance of being courteous."

After reading these reports, can you wonder that we feel privileged to have a part in recognizing boys and girls like these—and that we look forward year by year with eager anticipation to hearing more about our Foundation winners?

ACHIEVEMENT AWARD WINNERS FOR 1963

The following list includes only the names of the winners reported to us. We are sorry not to be able to list the winners in the many other schools taking part in the Foundation project. Unfortunately, they neglected to send in their reports.

Where two names are listed for one school, in most cases the first name is that of the agriculture student, the second that of the student in homemaking. In one or two cases, however, two students in the same subject in one school qualified for the award.

MAINE
Boothbay Region High Sheilagh Foss
Falmouth High Elaine Hurd
Jonesport High Gale Kelley
Newport High Allen Graves
Sumner Memorial High Grace Hildebrand
Waterville High Judith Hoxie

MARYLAND
Bladensburg Sr. High Joyce Callow
Boonsboro Sr. High Alice Funk
Howard County Sr. High Janet Brown
Pat McKelghan
Waterville Central Gail Eckerson
Wayland Central Norman Johnson
Wayne Central Richard Billings
Wellsville Central William B. Dean
Westfield Academy & Central Jerry Mason
West Valley Central Arlan Harvey
Owen D. Young Central Virginia Smith
VanHornesville

PENNSYLVANIA
Beaver Falls Area Sr. Mary Hogue
Bellefonte Area High Walter Horner
Berwick Area Sr. High Susan Cain
Blue Ridge High Michael Lanzinski
Central Columbia Co. Joint Ricky Vannatta
Chestnut Ridge Joint High Larry Cole
Coudersport Joint High Charles Zipfel
Cowansque Valley Joint Charles Avery
Damascus Township High William Gager
Fort LeBoeuf High Joseph Burawa
Gettysburg High Diane Valentine
Harmony Joint High Mickey Hartzell
Marion Center Joint Edward Avery
Penn Argyle Area Joint Susan May
Reynolds Area Joint Ralph C. Boger, Jr.
Saegertown Area High Stella Leszek
South Middleton High William Grove
Southern Joint High Clarence Nace
Southern Fulton High Ronald Hixson
Sugar Valley Kenneth Lupold
Susquehanna Consolidated High
Union City Area High Roseanne Steplenitch
Williamsburg Community School David Fox
Williamsport Technical Institute Kenneth Martin
Wilmington Area High Dennis Eckert
Clyde Rodgers

RHODE ISLAND
Coventry High Charles Arnold

VERMONT
Bellows Free Academy Stephen White
Bradford Academy Dennis Peters
Brattleboro Union High Robert Ranney
Chester High Ernest Plumb
Johnson High Lorraine Jones
Lyndon Institute Yvonne Crosier
Middlebury Union High Leighton Wilcox
Gilbert Widawack
Milton High Diane Erno
Orleans High Dale Simins
Peoples Academy, Morrisville Phyllis McKee
Vergennes Union High Harold Moulton
Wallingford High Mildred Hutchinson

North Harford Edgar Farmer
Mt. Airy Sr. High Cynthia Boller
Southern Jr.-Sr. High Eugene Wayson, Jr.
Nina L. Bell
Robert Measell
Walkersville High

MASSACHUSETTS
Arms Academy John Herron
Bristol Co. Agricultural High John Arruda
Hopkins Academy Alex Mokrzecki
Narragansett Regional High Terril Davis
New Salem Academy Andrew Kukas
Norfolk Co. Agricultural School Wm. Heller
Palmer High Cheryl MacKenzie
Williams High Richard Miner

NEW HAMPSHIRE
Alton Central Sandra Morrill
Hillsboro-Deering Co-op. H.S.
Oyster River High Mary J. Roberts
Walpole High Heidi Lyons
Wcare High Wendy Fradette
Joseph Perrigo
Lucile Heino

NEW JERSEY
Bridgeton High Sarah Durham
Hammon School Joseph Maimone
Jonathan Dayton Regional John Ruby
Newton High School Anna Douma
Salem High Jimmie Dean Dawson

NEW YORK
Addison Central Jerome Witter
Adams Central Loretta Dufresni
Alton Central Ernest Cutting
Annabelle Wilcox
Akron Central James Flint
Alfred-Almond Central Sterling Hurd
Alice Freeman Palmer Central
Altona Central Candace Friends
Donald Turner
Wanda Johnson
Melvin Woodin
Andes Central Tom James
Arcade Central Thelma Gates
Arkport Central Karen Doolittle
Bainbridge Central Carol Klec
Barker Central Stanley Hall
Beaver River Central Nancy Farwell
Belfast Central Janet Patton
Belleville Central Virginia Clickman
Berne-Knox Central Jim Jackson
Boonville Central Mary Ann Kuhlmann
Brewster High Shirley Baker
Bridgewater Central Lucy Lawrence
Brockport High Gaylen Hill
Brocton Central Sue Dobbin

Canaseraga Central Joanne Fox
Canton Central Jean Lawrence
Carmel Central Darolyn Cargain
Cassadaga Valley Central Martin Schroeder
Cato-Meridian Central Ardys VanWie
Central Square Central William Ruprecht

Charlotte Valley Central Marie Walter
Chazy Central Edmund Teak
Cincinnati Central Brenda Avery
Clinton Central Lee Bement
Delaware Academy & Central School David Stockbridge

Deposit Central Tom Davis
Dryden Central Catherine Gifford
Ellenburg Central Cheryl Turscik
Falconer Central Nancy Labarre
Fillmore Central Charles Lamb
Fonda-Fultonville Central James Wolfer
Forestville Central Dale Acker
Frankfort-Schuyler Central Patricia Mann
Franklin Academy Gary Olds
Frederick Central Paul Thompson
Friendship Central Paul Cheney
Galway Central Lawrence Skinner
Geneva High Cheryl Lyons
Genoa Central Sandy Bennett
Goshen Central Dorthea Atwater
Frank Szczepaniak
Betty Wasneski

Greenville Central Stewart Ketcham
Groton Central David Brown
Hamilton Central Paul Swenson
Hammond Central David Rogers
Harpurville Central Ralph Johnson
Hartford Central Sylvia Brayton
Henderson Central Patricia Babcock
Holley Central Judith Rheinwald
Hoosick Falls Central Donald B. Niles
Horseheads High School William E. Roy
Interlaken Central Charles Pell
Jamaica Plain High George Goldstein
James A. O'Neill

A. L. Kellogg Central, Treadwell Kathleen Benedict
Kingston High Frank Zygmunt
Lake Shore Central, Angola Juanita Bach
Leavenworth Central, Wolcott Gary Penner
Leonardsville Central Roy Jones
Lisbon Central Alta Carr
Little Valley Central Edward Jedrzyck
Lowville Academy & Central Ronald Nortz
Lyndonville Central Dianne Morrill
Madison Central William Sehn
Madrid-Waddington Central Patrick Ruddy
Mayville Central Sharon Crandall
McGraw Central Patrick Collins
Mexico Academy & Central Fred Graves

Milford Central David Osterhout
Mohawk Central Patricia Barlow
Moers Central James Yule
Mynderse Academy, Seneca Falls Marilyn Cadway
Kelby Kunej
George Steinmetz
David Hoyt
Sandra Carey
Jean Ballard

Naples Central Stanley Manning, Jr.
Newark Valley Central Robert Ramson
New Salem Academy James M. Thompson
North Collins Central Joseph Hendricks
Northside High, Corning Helen Hendrickson

Palmyra-Macedon Central Allan Rich
Penn Yan Academy Carol Slater
Phelps Central Francis Day
Judy Crouch
James Buckles
Joann Sherwood
Kenneth Everhart

Potsdam Central Paul Thompson
Prattsburg Central & Franklin Academy
Ravena-Coeymans-Selkirk Central
Richfield Springs Central Cathy Rathbone
Romulus Central Patrick Petkewec
Rushford Central Connie Brewer
Saint Johnsville Central Charles Clark
Saint Lawrence Central Leonard LaPorta
Salmon River Central Lowell Todd
Saranac Central Linda LaFave
Sauquoit Valley Central Joyce Henry
Scio Central High Franklin Frost
Schoharie Central Charles Maybee
Sharon Springs Central Linda Remmers
Shelburne Falls David Cross
Sherburne Central John Herron
Sidney High School Marjorie Johnson
South Kortright Central Avery DuMond
Susan Stevens

South Lewis Central John Domagala, Jr.
Stamford Central Virginia Layman
Stockbridge Valley Central Brenda Russell
Suffern High Michelle Bartlett
Troupsburg Central Steve Cady
Trumansburg Central Richard J. McKeel
Judy Baldwin
Carol Root
Nancy Smith
Linda Horner
Bruce Gregory
Leon W. Paffenroth
Joseph Rakowiecki
Dean Hanks



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MOHAWK in the "Yellow Pages"



MILK FAT

In regard to your editorial on the fat, protein, and solids in Jersey and Guernsey milk, we suggest that you come into the Rochester and Buffalo state markets to study conditions, and then write an article for your magazine. As you know, these two markets are state, not federal markets. Here, no dealer can tell a Jersey or Guernsey breeder to re-

duce his butterfat test as you quoted in your editorial!

When milk is tested on the basis of protein content and solids, Jersey and Guernsey breeders will be right on top. Please be assured we are not tossed around by any dealer or dealers. I am happy that I have nothing to do with federally controlled markets and we pity the producers in a federal market. In the Rochester and Buffalo markets it is **honorable** to have a 5 percent test. — *Edward Buholtz, Pittsford, N. Y.*

RAILROAD MUSEUM

Some of the people in the Oneonta area are interested in establishing a railroad historical museum. We feel that this would be a natural place for such a museum inasmuch

as this is the birthplace of the Railroad Brotherhood. Also, it was in the past one of the largest railroad centers in the East; at one time the largest roundhouse in the world was located here.

What we are interested in at the present time are any pictures or stories pertaining to railroading, and any antique material such as lanterns or other equipment that people would like to see preserved. If there are those who do not want to donate the items but would loan them for a time we will gladly accept.

It is our hope that this museum will eventually be on a level with the very fine museums at Coopers-town. It would be a non-profit, educational institution to preserve the lore of the days of the steam loco-

motive and the pioneering of the railroading business.

Anyone interested can write to me at the address given below, or to Mr. Vernon D. Seeley, 9 River Street, Oneonta. — *Charles E. Truscott, 53 Spruce Street, Oneonta, N.Y.*

HONEST MONEY

There is no reason for a twelve-year-old boy or girl not to pick berries, beans, or other small fruits. Naturally, the children should have their own pay. I am much against young people being put to work and parents collecting the pay; the incentive to work comes from the money earned, and it belongs to the child.

In the State of Maine, hundreds of young people are hired every summer to rake the tremendous crops of blueberries. For two years I have worked for one of the largest canning companies of the State during the blueberry season. At first I was somewhat at a loss, and I admit I felt sorry for the children bending over in the hot sun raking berries.

But I found not a single child in the field who was sent there by his parents. The children like the excitement of working together, the picnics every noon, the beautiful countryside, and, most of all, pay day.

Each child has a definite project. Some wish to earn half the price of a new bicycle because the fathers have said they would pay half if the boy earned the other half. Some of the girls want to buy new school clothes, perhaps save toward their class trip, or get a new dress for the one big social event, the Junior Prom. Children get a valuable lesson in earning honest money.

I do wish to state, however, that the employer **must** be instructed about the abilities of young people. They must be allowed to rest; they must be treated as valuable employees, not like little slaves. Our blueberry boss is the mother of four boys, the kindest, best, and most intelligent person one ever will meet. I am sure our company realizes this, as she has worked for them for fifteen years. She knows how to handle the youngsters, and they all love her. — *Frances Hurd, Palermo, Maine*

BIRD PROBLEM

I was very much interested in what Harold Hawley had to say in regard to the exterminating of grackles and starlings. We spray to kill bugs that destroy our crops and nobody makes a fuss about that—or at least not too much fuss. But these birds destroy eggs and young of other birds by the millions. They also destroy growing crops throughout the summer and then, before they take off for the South, they roost here and there and the filth they spread is unbelievable.

It seems to me that the trees they roost in could be sprayed with some sort of gas at night while they roost. I thoroughly believe there should be some action in regard to doing away with them; I am sure they are spreaders of a great many diseases among farm stock and people.

I am sure if some of the people who cry about killing them could watch them in the spring when they take the young of our good birds and literally eat them alive bit by bit, then they wouldn't feel the way they do about these birds. — *H. C. Houy, Minneapolis, Minn.*





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Should You Buy Diesel?

By TOM CLAGUE

SHOULD YOUR next tractor be a diesel? How can you tell?

There isn't any quick answer. Economics is the basis for your decision, of course, and the only way for you to find out is to study your own situation. How many hours will you use the tractor per year? And, of course, you must know how much more the diesel engine will cost than the gasoline engine in the tractor you're going to buy.

To protect yourself, look into the crystal ball a little too. How much work will the tractor be doing per year during the time you own it? How long will you keep it before trading? And during the time you have the tractor, how much less per gallon will diesel fuel cost than gasoline? (Consider the fact that the difference in cost per gallon is significantly less now than it was ten or fifteen years ago.)

Pro and Con

There are two reasons why you may save money by buying a diesel tractor: (1) it uses less fuel per hour than a gasoline engine in the same load; and (2) the fuel costs less per gallon.

There is one important reason why you might not save money with diesel: it costs more in the first place.

Maintenance costs don't enter into the picture much. Studies show they are about the same, with diesel engines running longer before needing attention, but costing more when they do need it.

Figuring out what you should do is no simple problem. The University of Illinois has published a table showing the difference in cost of operation between a diesel and a gasoline tractor. This includes different-sized tractors (small, medium and large) with time of operation ranging from 400 to 1,000 hours per year. It also includes the difference in cost, with a range of from \$400 to \$1,000 more for the diesel; and it includes the difference in cost per gallon of fuel, which is figured at two and four cents per gallon.

Let's take an example, using the before-mentioned table. Suppose you buy a 60 HP tractor and pay only \$400 more for diesel. If you operate it 1,000 hours a year, and save four cents a gallon on fuel, you'll save \$1,982 in ten years. However, suppose you buy a 32 HP tractor and pay \$800 more for diesel. If you use it only 400 hours a year, and save only two cents a gallon on fuel over a ten year period, you'll lose \$760 compared with a gasoline tractor.

A Toss-Up

And here's a situation that's just about a toss-up. Let's say you paid \$600 more for diesel in a medium-sized tractor, and you used it 500 hours a year. If you saved three cents a gallon on fuel, you'd save \$60 in ten years.

These figures are supported by two year studies in Arkansas. It was found that for 2-3-plow tractors using an average of 581 hours per year, costs were about the same with diesel and gasoline—within 1 percent. With 3-4-plow tractors operated an average of 821 hours, the savings were about 10 percent for diesel over gasoline. With 4-5-plow tractors operated an average of 582

hours, the savings were about 4% for diesel over gasoline.

So you can see there's no magic to diesel. The more work an engine does, the more advantage diesel has over gasoline. This is why heavy earth-moving equipment is generally powered with diesel units—they may run thousands of hours in a year. And the same is true for big over-the-road trucks.

There are other considerations you shouldn't overlook in considering this decision. Cleanliness is especially important with diesel fuel, because of extremely close tolerances in the fuel injectors. Any foreign material in the injectors can cause expensive service problems. Diesel fuel should be stored in a large tank so it can run directly into the tractor tank. If your fuel is not handled that way now, this should be changed.

Try and work out how many hours you have been using your present tractor, then predict the use of a new one. If it's larger, you'll probably use it fewer hours, unless you're expanding your operation. Estimate your fuel consumption per year for the tractor you're going to replace; then compare per-gallon costs for diesel and gasoline, and allow for lower per-hour consumption of a diesel. How much would you save in a year? Compare this against the extra cost of diesel. If you're ahead with diesel, fine; if not, better stick with gasoline.

Reflections of a Country Pastor



A Stepping Stone

To each is given a set of tools,
Some building blocks and a set of
rules,
And each must fashion, 'ere life has
flown,
A stumbling block, or a stepping
stone.

The Executive Secretary of the national board of a great denomination closed his annual report with these words. In the printed report no credit was given, so it was taken for granted that the verse was his. This great churchman, also a Christian statesman, wanted to emphasize individual responsibility.

Suppose each of us were to examine his own decisions, public and private relations, and his acts, in the light of that test, "stumbling block" or "stepping stone?"

What have I done to help human progress upward, even one step up and ahead? A flight of steps is constructed of stepping stones on an upward incline. They are more than a line of stones to keep one's feet out of the water or mire, although that is a good use.

Of course, many wait for the escalator of circumstances to give them a lift. The ladder steps of effort are "too hard." You can surmount a great peak by cutting—or placing—one stepping stone a day. In fact, our daily acts decide the question of hindrance or help.

—Arthur Moody

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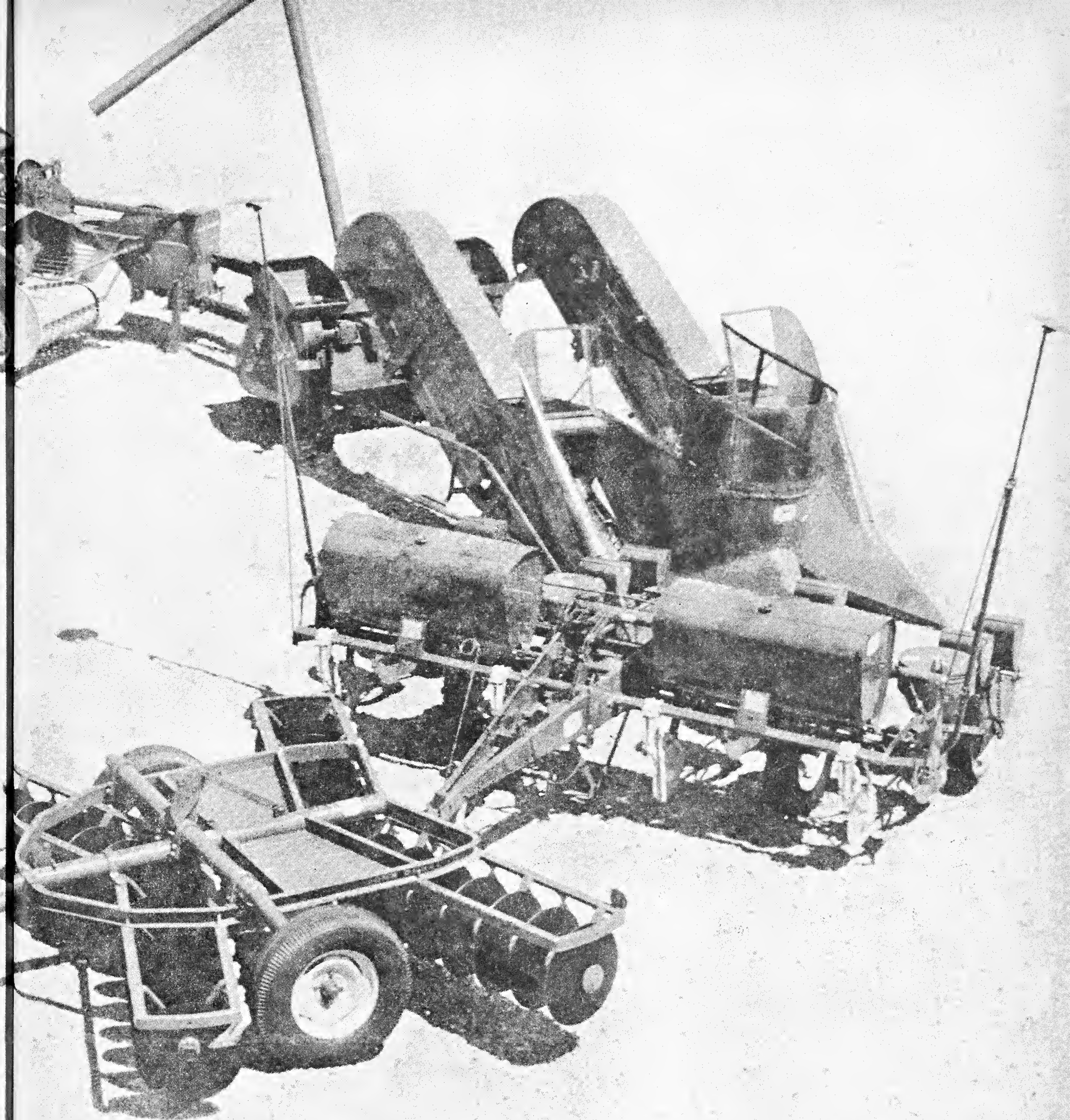
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handle new types of equipment and many larger implements.

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Department A Moline, Illinois



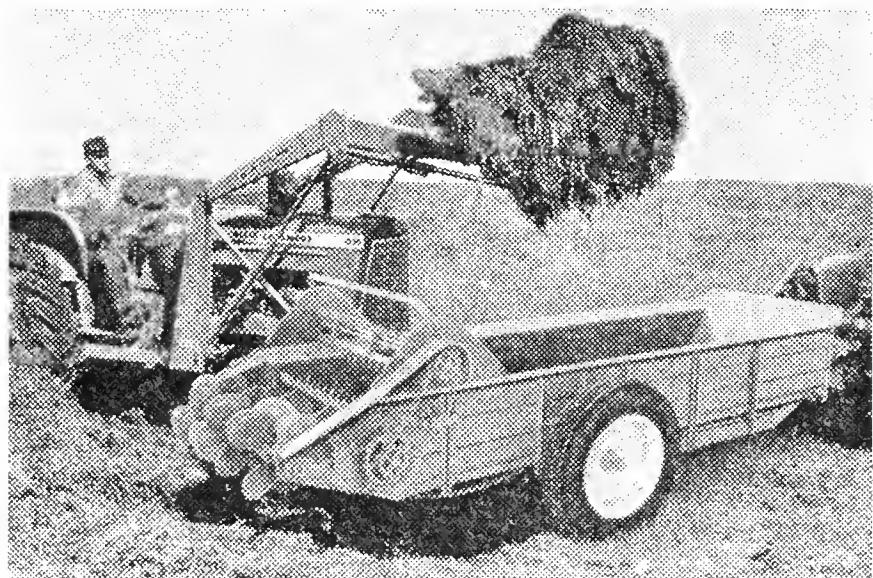
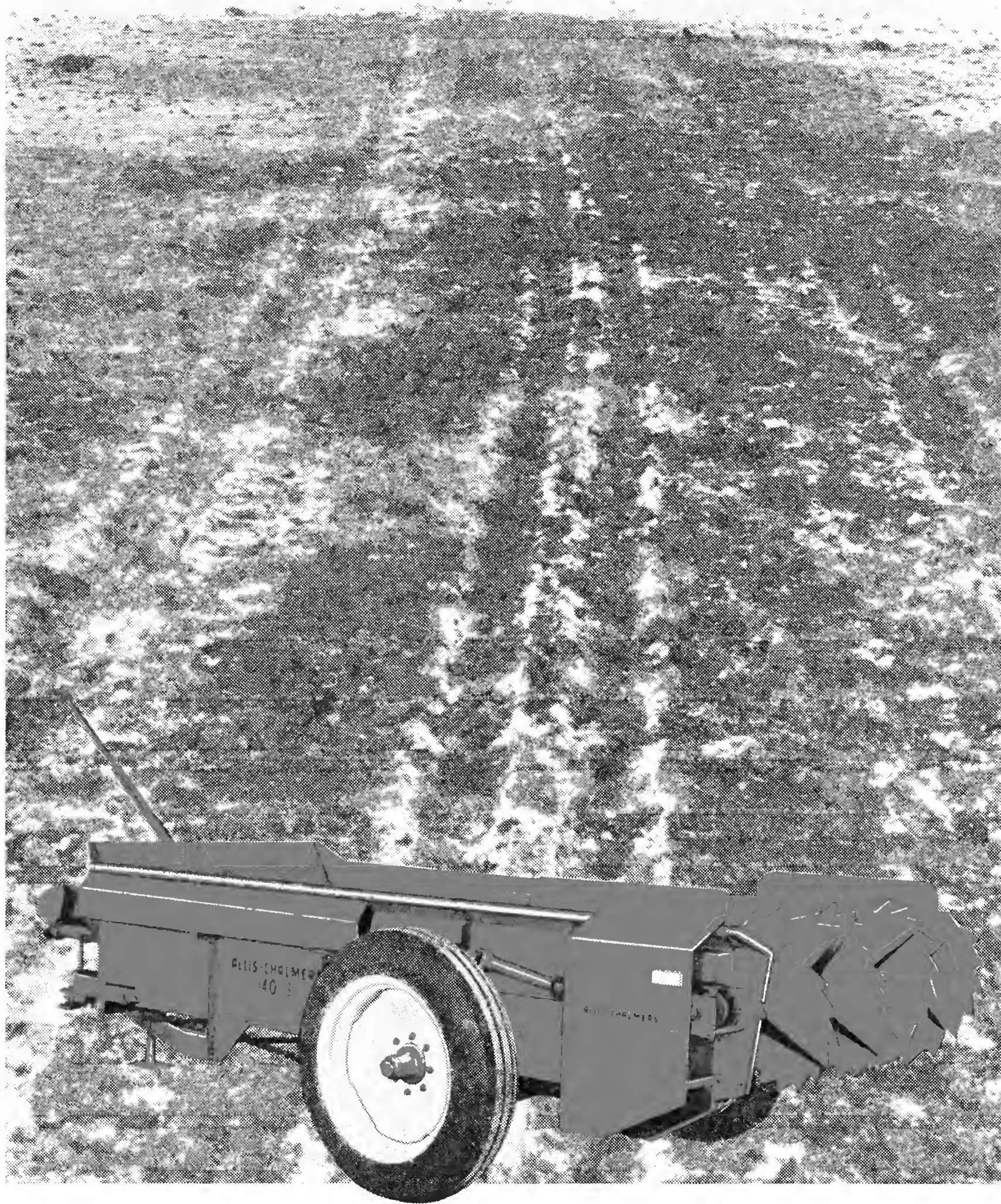
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Trouble-Shooting Distributors

If extensive distributor repairs are part of your tractor tune-up, you're probably familiar with the more obvious things that can go wrong — burned, pitted points, condenser failure, improper timing, defective rotor.

What about the other less obvious things? The distributor cap, for instance, may be responsible for hard starting, misfiring, even complete ignition failure. The cause may be nothing more than a tiny crack in the cap, so small you can hardly see it.

Such cracks sometimes occur between two of the towers, and allow the high tension current to "track" to the wrong insert inside the cap. This can actually cause spark plugs to fire out of order. If the crack occurs between the center tower and the outside edge of the cap, it can cause high voltage current to short to ground at the distributor body, resulting in complete ignition failure.

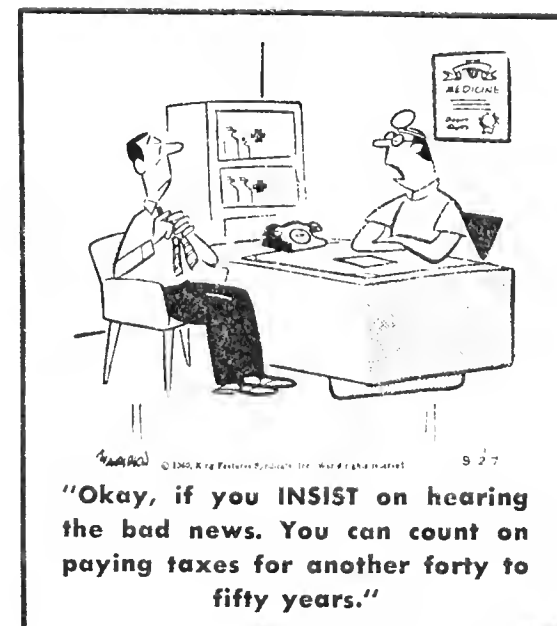
A dirty cap also can cause this tracking phenomenon, especially if carbon dust (from the center contact button) mixes with other contaminants and moisture in the air to form conductive deposits on the inside surface of the cap. Again, high tension current may "leak" across the deposits to the wrong insert, firing plugs out of order, or it may short to ground. If constant tracking across deposits has eroded a permanent path, you'll probably have to replace the cap; otherwise a thorough cleaning should suffice.

Arcing

Arcing is another major cause of distributor cap failure, resulting when ignition cable leads aren't pushed all the way into the towers leaving a gap between the metal ends of the leads and the metal tower inserts. As high tension current jumps across this gap, it gradually erodes and corrodes the metal terminals, and can result in their complete deterioration. The result is intermittent spark plug misfiring or ignition failure.

Severe arcing can completely deteriorate cap towers. Always remove protective rubber boots from the towers and examine the areas under them.

While examining the distributor cap, check the carbon contact button on the inside of the center tower, too. It can be worn so that it doesn't touch the contact spring on the rotor. Arcing across this gap may corrode the spring, create high resistance, and can prevent normal voltage from reaching spark plugs.





Gerald Stoeckel uses molasses stored in this tank to increase roughage consumption.

An Expert On Roughage

By GORDON CONKLIN

HOW WOULD you like a herd of 38 cows producing at the annual rate of 17,920 pounds of milk and 669 of fat? Gerald Stoeckel of Bloomville, New York, is the proud owner of such a herd, as well as the possessor of a certificate recognizing him as the owner of the only cow in New York State to produce 10,000 pounds of butterfat!

It doesn't take long, when visiting the Busy Acres Farm, to find out one secret of Gerald's success with dairy cattle—top quality roughage. In this day of thrower-equipped balers, it's unusual to find a top dairyman like Gerald who puts in loose hay with a hayloader and double harpoon hay fork. However, the hay quality at Busy Acres is very high—and equipment costs very low.

Low Inventory

In fact, the major items in the machinery inventory include only a manure spreader, two tractors, a hayloader and side delivery rake, hay crusher, mower, fertilizer spreader and cultipacker. How does he fill his two 12' x 40' silos with wilted grass silage? A custom operator pulls in and does the job for an amount which Gerald believes is less than the cost of owning his own equipment. He does, however, mow and crush with his own machinery ahead of the chopper.

The Stoeckels have used grass silage for the past 15 years, but from experience with corn silage in 1954 and 1958, they're wondering if corn isn't the answer for more cows on the same acreage. Gerald has used molasses and citrus pulp as preservatives with grass silage, but uses no additives at present.

He believes that, ideally, hay shouldn't get over knee high. "One of the most important things dairymen do every year is get the first cutting off early," he says. "If I tried to do it alone it would take a long live in overhead if it isn't used on time, and equipment can be expen-



Gerald uses a mow drier to produce top quality hay.

enough acreage." He has started haying as early as June 3, and one year had 38 acres either in the mow or the silo by June 10.

In 1953, Busy Acres began to hum to the tune of two mow driers, each with a 36" fan powered by a 5 h.p. electric motor. "I like to put in hay when the leaves are still hanging on," Gerald says. "Even if the weather is dry, I'm convinced the field losses are terrific if hay is really field-cured." The fans continue to run around the clock once haying has begun, unless there is an interruption in harvest of several days duration.

Haying All Summer

Actually, haying at the Stoeckel place goes on all summer long because there are 55 acres of rotated pasture, and clippings of overgrowth are harvested as hay. First, second, and third cuttings of meadow, along with the clippings, keep the mower going from early June to the first week in September.

Every fall, a soil sample is tested from every field and fertilization plans made on the basis of results. Each field gets a bit different treatment, but generally legumes receive 500 pounds per acre of 0-15-30 (in two applications); when legumes begin to run out, Gerald goes to 400-500 pounds per acre (again in split applications) of 8-16-16 or 12-12-12. The last year before plowing hay land, he goes in with enough urea or ammonium nitrate to provide 40 to 50 pounds of nitrogen per acre. "Putting on fertilizer all at one time means more of it runs off, goes off in the air, or just provides for lux-

(Continued on Page 24)



"COOPERATION COMES NATURAL TO FARMERS" says LeRoy Smith

LeRoy Smith of R.D. 2, Burke, N. Y., Franklin County, is a firm believer in cooperation whether it's helping a neighbor get in silage, as he is doing here, or participating in an organized cooperative.

"I believe a farmer has to support a cooperative if he wants proper representation. That's why I am a delegate for the Burke Milk Producers Cooperative, a federated member of the Bargaining Agency."

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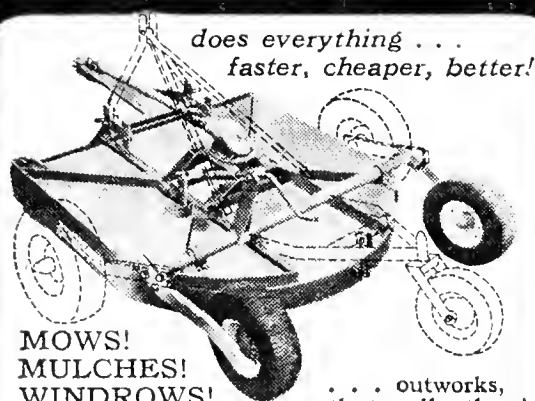
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Poultry Farming Changes

by HUGH COSLINE

I CAN remember some thirty years ago a burst of enthusiasm for cages which was relatively short-lived, mainly because of unsolved ventilation problems. These problems and some others have now been solved, and enthusiasts claim that hens in cages will be the accepted pattern for egg production.

Bigger capacity is one advantage. For instance, during a recent visit to several New York poultrymen, I learned that John Bloom of Cardiff, New York, once had around 5,000 laying hens in several floor houses; he doubled his capacity by building a cage house.

However, he isn't completely happy. "It takes just about one-fourth of the labor in a cage house compared to a floor operation," he said, "but the odor is distinctly objectionable." On the Bloom farm, the cage house is close to the dwelling and on the uphill side, so that air drainage in the evening brings the odor to the house. Obviously, the location of a cage house is something to consider.

The odor problem is one reason why Earl Hudson of Camillus, New York, keeps 16,000 layers on the floor.

"We live in a thickly settled neighborhood," says Earl, "and I'm sure the neighbors would object. Even if they couldn't force us to change, I wouldn't want the ill feeling."

While Earl has hens in several buildings, his labor efficiency is good. "Actually there are some advantages in a split flock, for example, disease control," he commented.

The Hudson farm is a partnership of a father and four sons. In addition to the hens there is a high-producing herd of Holsteins — and a division of responsibility. Earl is the poultryman, but the others pitch in and help for such jobs as cleaning houses. Automatic feeders and waterers, and ramps for dumping manure brought by a garden tractor directly to the spreader, lighten poultry-keeping chores.

Size Advantage

Size helps to make automation practical, especially in egg handling. For example, there's the 40,000 hen operation of Adam Baum near Locke, New York. Actually, the entire operation keeps 75,000 hens, but the 40,000 are in a 450 x 50 foot two-story house.

Manure disposal is a problem; automatic cleaners have their troubles—John Bloom says a poultryman with hens in cages needs to be big enough to employ a full time mechanic! In some cases the problem (in addition to the objectionable odor) is where to put the manure. Adam Baum has a neighboring vegetable grower who is glad to use it, but in some areas where dairy or crop farms are scarce, poultry manure is a drag on the market.

On the other hand, on the Hudson farm there is little odor, and the dairy side of the business provides plenty of crop land for manure.

Those who build houses with pens are faced with the question of desirable size. Walter Spencer of Homer, New York, is building another house to increase his flock to 19,000. "I had a hired man last winter," he said, "but our volume is too small to

justify it, so I decided to expand so I could continue to hire a man."

When it comes to handling eggs, the big farm has the advantage. It has enough volume to justify mechanization. Adam Baum has a labor force of 16 people, with 6 of them washing, candling, grading and packing eggs. But a smaller farm has an advantage because it seems easier to develop markets at nearby chain stores, dairy bars, hotels and restaurants. I think it's safe to say that many upstate poultry farmers would find tough sledding if their only market was Metropolitan New York.

POULTRY LIGHTING

In December, 1962, the College of Agriculture at the University of Maine initiated a recommendation for a reduced light program for poultry replacements. The recommendation was to grow August through March-hatched replacement pullets on a reducing light program such as nature provides for a June hatch.

Field reports from Maine poultrymen who followed the recommendation support the fact that growing birds should not be subjected to an increase in day length, while birds in production should not be subjected to a decrease in daylight.

Egg production, molting, growth, development of maturity, fertility, feed conversion, and behavior all are influenced by the length of light in a day, and whether the days are getting progressively longer or shorter. Poultrymen can, of course, influence bird behavior and performance by the use of artificial light, and here are the Maine College of Agriculture's recommendations for rearing replacements:

1. Natural light for April, May, June and July-hatched birds.

2. Reduced lighting for August through March-hatched birds, as follows:

(a) Count ahead 24 weeks from date chicks will be hatched, and determine (from the almanac or otherwise) the natural day length in hours and minutes on that date.

(b) Add six hours to the daylight on the day the chicks will be 24 weeks of age. This is the total light (natural and artificial) that you should provide for the first week of the chick's life.*

(c) Each week thereafter reduce the artificial light by 15 minutes. At 24 weeks (or earlier with some hatches) the lighting period will be approximately equal to the natural day length.

(d) At 24 weeks of age increase the light period with artificial light (gradually or abruptly) to 14 hours of light—if the natural light is less than that. If the natural light on that day is more than 14 hours, maintain that amount of light for the rest of the production period by the use of artificial light. Do not permit a decreasing light period for layers.

*Note (b): If all night lights are used for first few weeks in brooder house, start your reduced light at 4 weeks of age—in which case add five hours to the daylight on the day chicks are 24 weeks of age.

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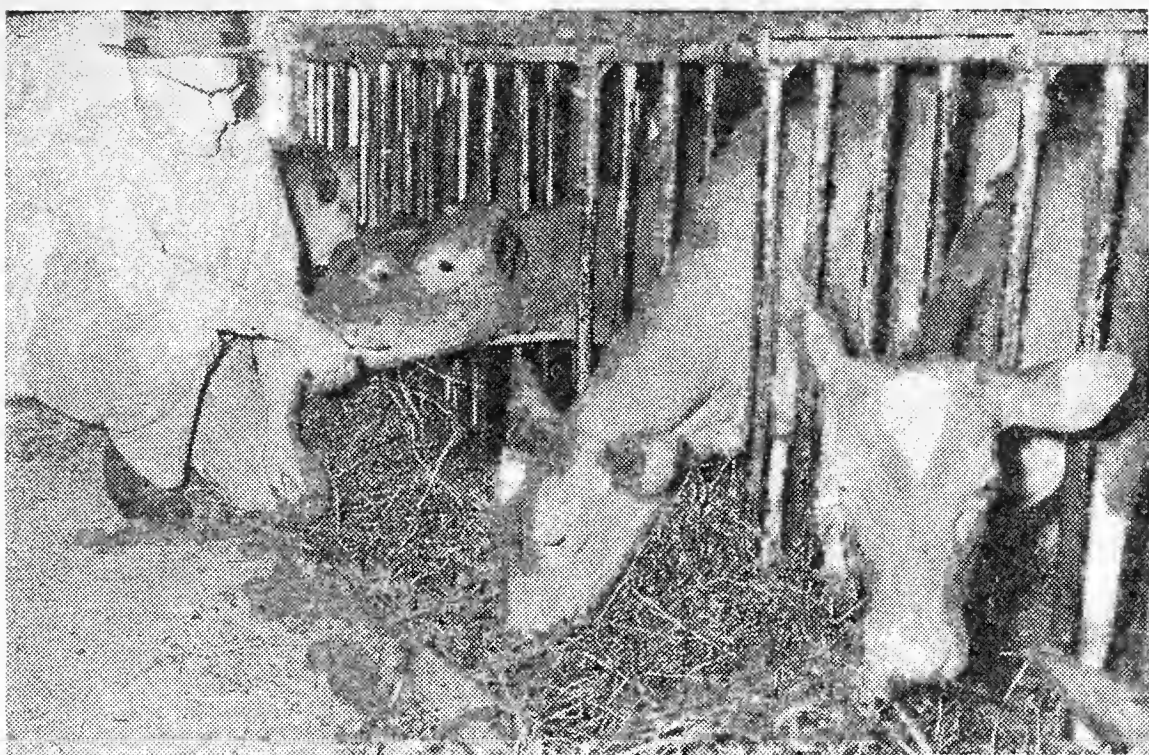


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It looks as though this calf thinks Stanley Murphy is the greatest!

Raising Dairy Calves

STANLEY MURPHY of Tully, New York, has a beautiful purebred Guernsey herd. A considerable part of his income comes from surplus stock, but while he wants to grow calves into strong heifers and cows, he doesn't believe in pampering them.

Newborn calves are left with the dam for a day, then taken away. "If left," says Stanley, "they get too much milk for their own good. They do get the dam's milk for a week, fed in a pail with a nipple, and they get some whole milk for around 70 days. I tried a milk replacer, but I figured I was saving only about \$5 per calf, and, after all, there is nothing like whole milk."

Water and Feed

Almost from birth the calves have access to a water bucket and to dry calf starter. Some calves begin to nibble as early as 3 or 4 days. Whenever a calf is eating 4 pounds of grain a day, milk is discontinued. Then they are limited to 4 pounds a day until they are 4 to 5 months

old, after which they get a little corn silage—but too much silage makes them too fat.

Of course, good hay is available from the time they are a few days old.

If pasture is available, they go out when they are four months old. Spring calves have hay and grain.

"I tried keeping calves in box stalls all summer," said Stanley, "but I didn't like the way their legs and feet developed. I like to get them out on the ground as soon as possible."

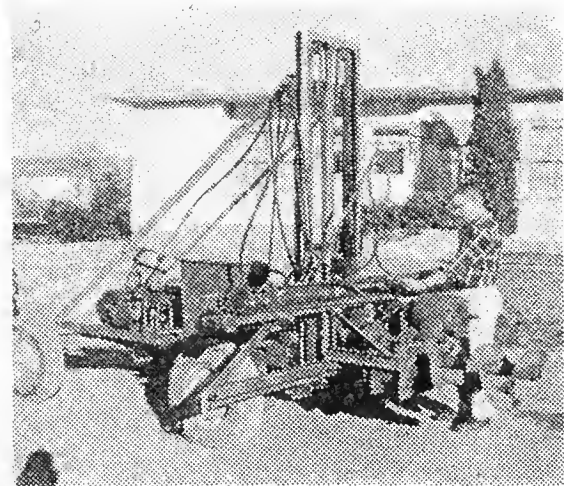
In the fall, when heifers are put in the barn, they get all the hay and grass silage they will eat. Most heifers freshen when 30 months old, but a few are older—up to three years. "I think they live and produce longer than heifers bred to freshen earlier," commented Stanley.

With good roughage, bred heifers get 2 to 3 pounds of grain a day when in the barn, but not on pasture until 6 weeks before they freshen.

—H.L.C.

a smooth vertical face for a minimum of spoilage, and delivers the silage in fluffy condition.

Mr. Petersen emphasizes that the equipment is still in its experimental stages, and **not** available from any manufacturer. He also comments that it will be possible to adapt the cutter to present-day unloaders, or to one that would mount on a three-point hitch of a tractor even though this machine would not be automatic.



Silo Unloader

PICTURED above is a completely automatic unloader for horizontal silos. The work is under the direction of Dale R. Petersen, agricultural engineer with the farm electrification research branch of the USDA at Washington State University at Pullman.

The new labor-saving unloader will use a low-power cutter unit with two cantilevered, counter-rotating augers mounted side by side to remove the silage from the pack in thin layers. The cutter travels horizontally and at right angles to the vertical silage face.

In tests, using 32-inch long, 16-inch diameter augers, this cutter unit has removed over 600 pounds per minute of peavine silage; it leaves

Dates to Remember

December 3-4 — Poultry Servicemen's Clinic, Cornell University, Ithaca, New York.

Dec. 9—Vermont Breeders' Institutes, Boscawen Town Hall, N. H.

Dec. 10—Vermont Breeders' Institutes, Piermont Town Hall, N. H.

Dec. 11—Vermont Breeders' Institutes, Cobble Hill Grange Hall, Barre, Vermont.

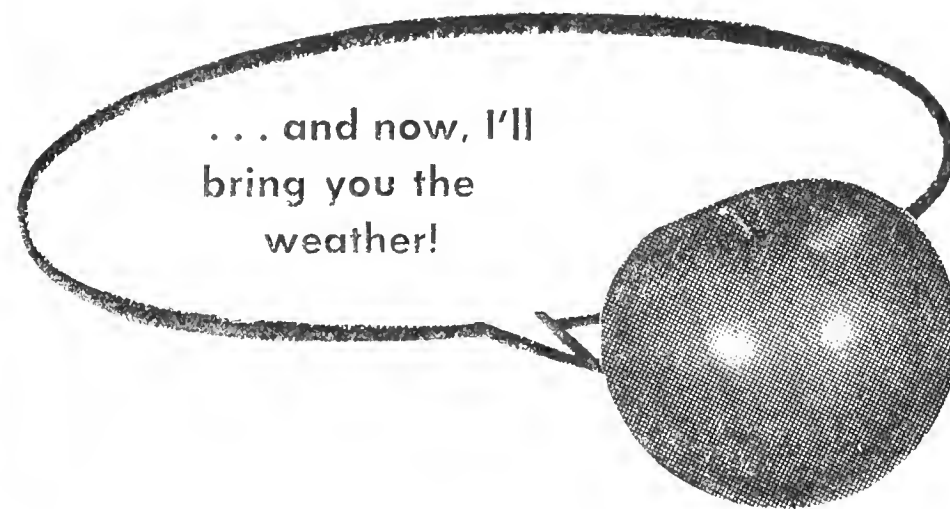
December 8-12 — Annual meeting of American Farm Bureau Federation, Chicago, Illinois.

Dec. 8-12 — 29th Annual Convention National Junior Vegetable Growers Association, Pittsburgh, Pa.

Dec. 18-20 — N. Y. State Vegetable Growers Association Annual Meeting.

January 13-17 — Harrisburg Farm Show, Harrisburg, Pennsylvania.

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Hornell	WWHG-FM	105.3 mc.
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Jamestown	WJTN-FM	93.3 mc.
Niagara Falls-Buffalo	WHLD-FM	98.5 mc.
Wethersfield-Buffalo	WBIV-FM	107.7 mc.

AM STATIONS

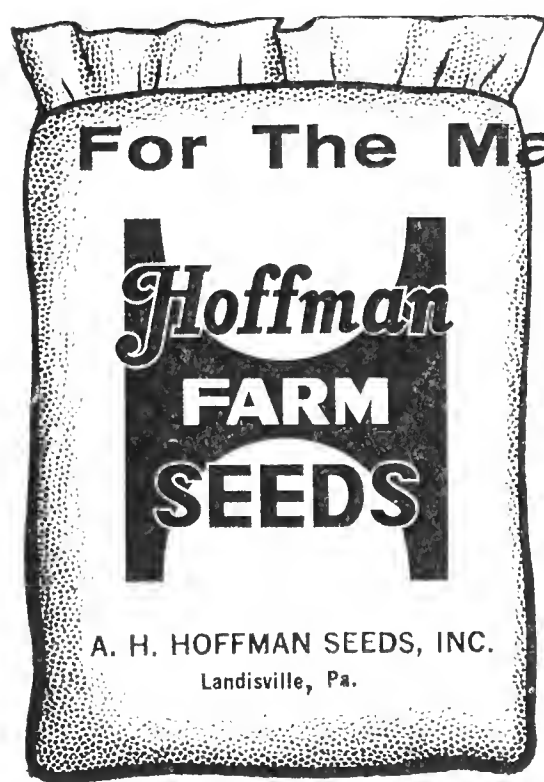
Auburn	WMBO	1314 kc.	Niagara Falls-		
Boonville	WBRV	900 kc.	Buffalo	WHLD	1270 kc.
Dunkirk	WDOE	1410 kc.	Olean	WHDL	1450 kc.
Elmira	WENY	1230 kc.	Remsen	WREM	1480 kc.
Hornell	WWHG	1320 kc.	Salamanca	WGGO	1590 kc.
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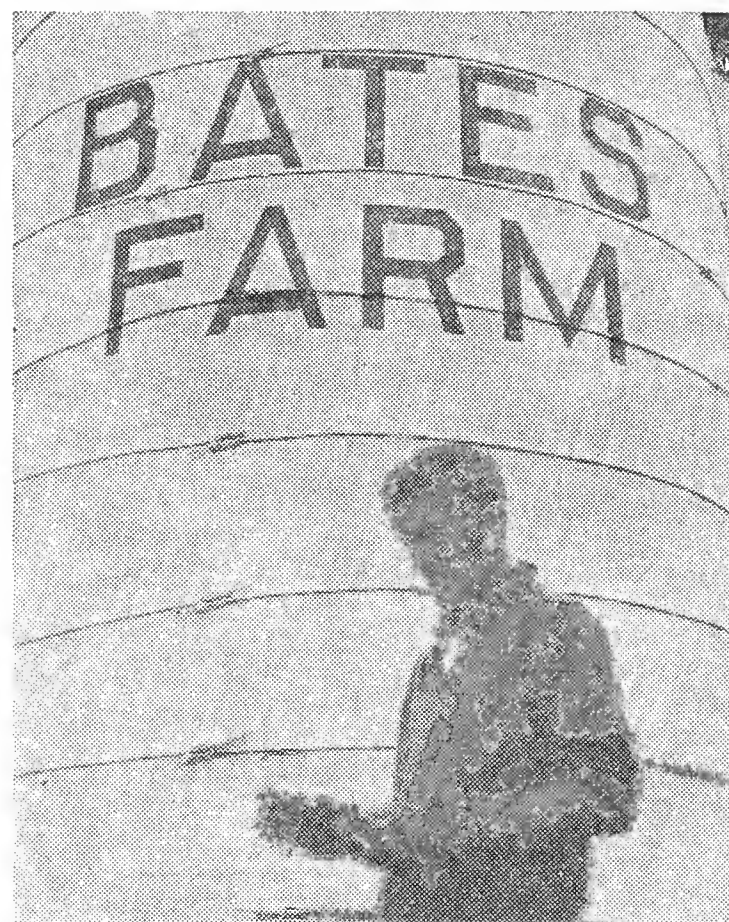
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Herbert Bates checks some grass silage.

Uses Zero Grazing

By Charles Stratton



GREENCHOP and grass silage is the key to summer feeding on the Bates Farm, Inc., Middlesex County, Carlisle, Massachusetts. It is owned by Richard Bates, Sr., and his two sons, Richard Jr. and Herbert. There are about 63 milkers in the herd, 24 yearling heifers, and 14 bred heifers, all grade Holsteins.

Cows are scheduled to freshen the year round, because the summer milk goes into ice cream for the roadside stand which is in charge of Richard, Jr. Son Herbert has charge of crops and cows.

Back in 1936 the Bates had an architect design and build their tie-up-type barn, which has proved superior to some more recently built. The barn has a hardwood ceiling, which is washed and painted annually. And they spray for everything; there are no flies visible in the barn even on the hottest days—and no mosquitoes at the ice cream stand.

Herbert starts the season as early as possible with greenchop; this year he started May 10 with winter rye, then went on to alfalfa and clover. He plans on feeding greenchop at the start of the season for about three weeks, and generally starts feeding it again toward the end of August, when he starts filling silos with field corn. "If the chopper is running," he says, "we feed greenchop — if not, we go to grass silage."

Grass Silage

Herbert pointed out that many dairymen have given up grass silage and gone back to corn because of the strong smell. He admits that it does get a little strong in winter, but with forced ventilation in the barn the odor isn't objectionable — and he puts it in when it is in its prime.

Herbert puts up 300 tons of grass silage in three upright silos (he also has two trench silos), feeding out two silos during the summer. The milkers get hay and grass silage twice daily during the summer; in winter they get one feeding of corn silage and one of grass silage, with a grain feeding after each milking.

The plan is to make grass silage early in the season when the fields are wet, then hay during the dry season. The preference is for a timothy and alfalfa hay mixture; clover and alfalfa mixed for grass silage. To get prime hay he starts early — this year June 10 — and he finished July 4.

In many suburban areas of New England extra land is obtainable free for the care. Some of this land used by the Bates is ten miles from the farm, but with good highways and three five-ton dump trucks, hauling grass silage from distant fields is no problem.

Herbert Bates uses a silo unloader, distributing grass silage in the barn with a cart. Two trench silos are unloaded, with a front end loader dumping directly into a tractor-drawn trailer for hauling into the barn.

AN EXPERT ON ROUGHAGE

(Continued from Page 21)

ury consumption by the crop," he says.

Gerald is a firm believer in smaller applications made many times — whether with fertilizer or feed. He feeds his cows hay seven or eight times a day during stabling season, and grass silage three times a day. Grain feeding is also split into four or five "scoopings" per day on top of silage and also before each milking. In 1963, he split summer grain feeding further and fed half of it when cows came in the barn and the other half when milking was finished. You're right—doing chores this way takes time (6 a.m. to 10 a.m. in winter), but Gerald makes it pay off in milk.

Molasses, stored in a 2,000 gallon tank beside the barn, is used to sweeten up hay for greater consumption. It is sprinkled (mixed half and half with water) on top of hay; Gerald believes it pushes consumption of hay-equivalent up from about 2.7 pounds per day per 100 pounds of live weight to about 3 pounds. Grain feeding is based on DHIC recommendations, with 22-25 pounds per cow as a top limit.

Gerald, his wife Eleanor, and children Glenn (13), May (12), and Lee Anne (6), don't have much chance to be away from home on a trip. Looking north along the beautiful river valley in which Busy Acres is situated, I could understand why this doesn't bother them. Valley land for farming, rugged hills for inspiration, a top herd for income and sense of accomplishment — the Stoeckels are indeed blessed.

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Dollar Disease — Ketosis

THE "Ten Dollar" disease of cows requires alertness on the part of farmers to keep it under control. The disease is ketosis, and it affects more than a million cows each year, causing losses in excess of \$10 million annually. In addition, the disease affects ewes, too. Actual death losses in cattle are relatively low, but production losses are high; in sheep death losses are high.

Ketosis can be classed as a man-made disease, according to the American Foundation for Animal Health. It has come about because in the process of breeding for more and more milk production, we have failed to breed animals that can withstand the demands of extreme lactation.

There is another aspect to ketosis which sheds some light on the nature of the problem. Because the rest of the body is unable to acquire and assimilate as much carbohydrate (energy) reserve as lactation demands, it begins to convert stored fat into carbohydrate. In the conversion of fat to sugar, "ketone" bodies are produced as by-products.

Primarily a disease of dairy cows, ketosis rarely, if ever, occurs in first-calf heifers, and the incidence in beef cows is low. The disease is most often seen one to six weeks after calving.

Symptoms

Symptoms include reduced milk production (the flow may nearly stop); greatly reduced appetite when the cows are likely to only nibble at hay or grass; a blank and staring look; staggering; an odor like banana oil on the breath; and nervousness.

Generally speaking, the most helpful preventive measure is providing cows with well-balanced, high energy rations. These will supply a high level of carbohydrates. However, the American Foundation for Animal Health warns against too much reliance on this management practice because it will not be uniformly successful.

Although it is wise to do everything possible to prevent the disease, it also is wise to recognize that ketosis is a widespread condition, and is often likely to develop in high-producing cows. If signs of the disease appear, a veterinarian should be called immediately. Prompt diagnosis and treatment are important, and the veterinarian may use intra-

muscular injections to help correct the condition; he may also use intravenous solutions in the treatment. A good percentage of recoveries is made if the cases are treated promptly.

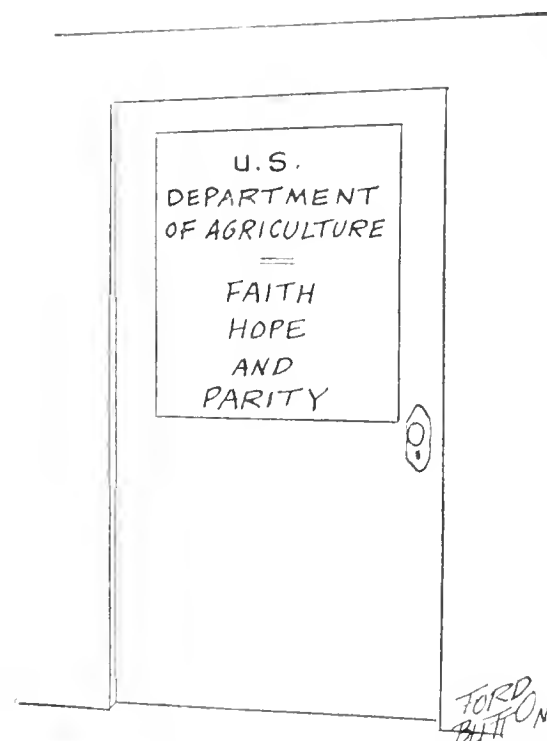
It is well to recognize, also, that ketosis may be mistaken by the untrained person for such problems as milk fever, grass tetany, rabies, listeriosis and, on occasion, leptospirosis, so an accurate diagnosis is of utmost importance.

No Foolproof Method

In ewes, ketosis usually occurs from a few days to a few weeks prior to lambing, and thus has become known as pregnancy disease.

Ewes coming down with it may be noticed standing listlessly by themselves, or trailing the flock. If the disease is allowed to progress the sick ewes are unable to stand, and slight nervous twitching may be seen about the head. Eventually, if not treated, coma develops and death follows.

Exercise and a good ration during gestation will help greatly in preventing pregnancy disease among ewes. But since no foolproof method of feeding and management that will prevent all cases of ketosis has yet been developed, the Foundation recommends that when signs of the disease appear farmers should make sure of getting an early veterinary diagnosis, plus prompt and sustained treatment, as the most satisfactory control measures.



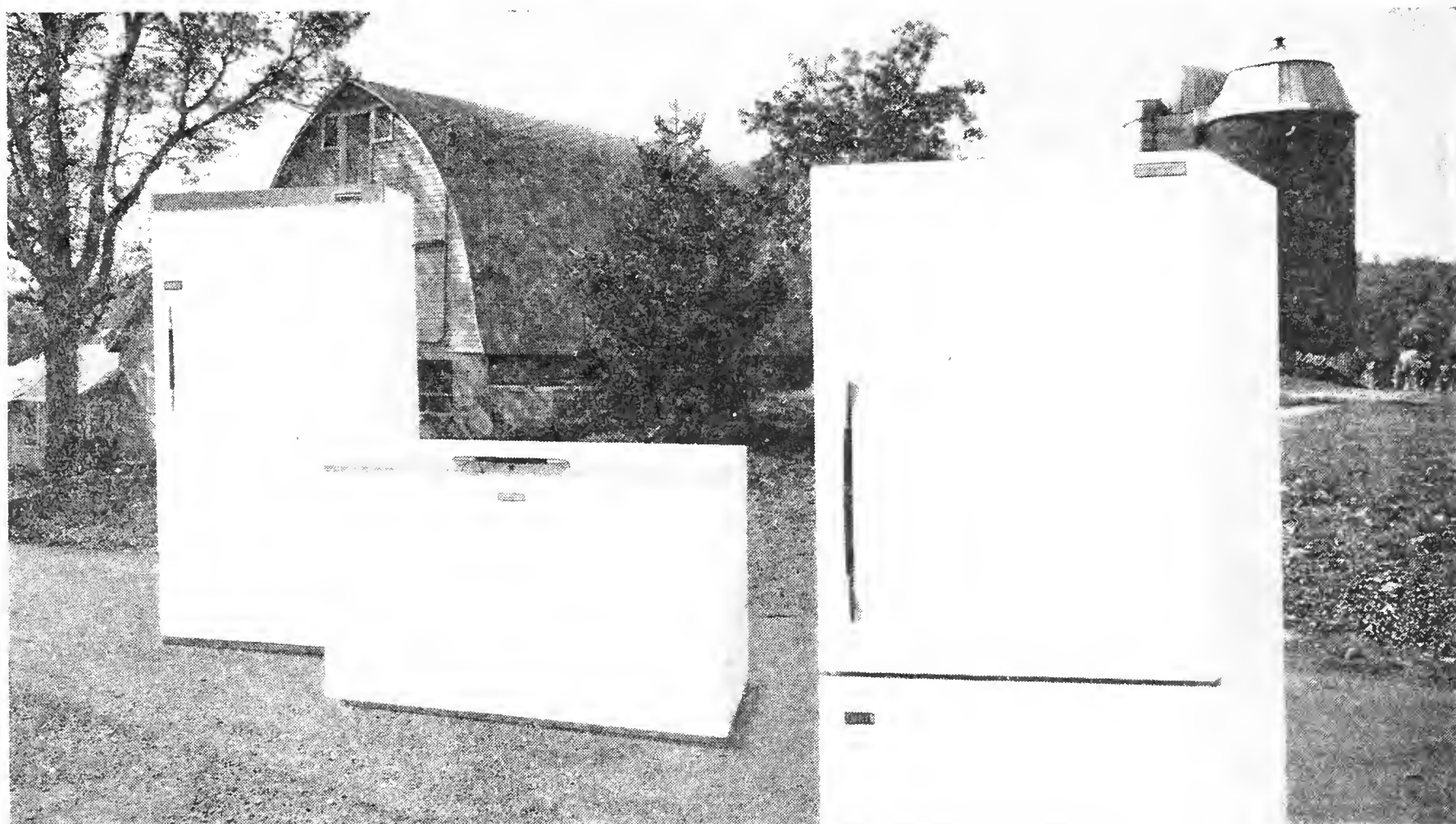
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Country Stories

David and Goliath

A number of years ago, when we were on the farm, a hummingbird had a nest near our house. After the little birds were hatched, a large red-tailed hawk came close to the nest. The mother bird flew from the nest and went after the hawk. In a very short time the little hummingbird flew close to the hawk's head. The hawk screamed, flopped its wings, and went away in circles.

The hummingbird then went to the other side of the hawk and struck again at its head. The hawk dropped to the ground, flopped its wings, and screamed several times. Going to see what had happened, I found the hummingbird had put both of the hawk's eyes out with her sharp beak.

—Mrs. F. T. Wagner, Olean, N. Y.

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DEALERSHIPS AVAILABLE for Conde Milking Machine Equipment. Vacuum suppliers, units, pipe lines, transfer systems, rigid or plastic and parts. Write Conde Milking Machine Co., Inc., Sherrill, New York.

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AUCTIONEERS—Livestock and farm auctions. Complete auction and pedigree service available. Harris Wilcox, Phone—Bergen 146, New York.

FOR TOPS IN Livestock Marketing—Regular weekly sales and farm auctions: Empire Live-stock Marketing Cooperative.

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ROSE, GINGER, other scented geraniums. Four different, labeled, \$2.00 P. P. Barberry Hill Greenhouse, Bethlehem, Connecticut.

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ASSISTANT HERDSMAN WANTED. Hudson Valley. Registered Holsteins. DeLaval, Deere Equipment, \$290 month plus house, electricity, fuel, milk. Write full details including age, health, family, references. Box 514-AF, American Agriculturist, Ithaca, New York.

EXCEPTIONAL OPPORTUNITY for experienced head cheese maker in New England. Salary commensurate with ability. Box 514-AD, American Agriculturist, Ithaca, N. Y.

THE SEEING EYE, Inc., nationally known philanthropy, invites young men interested in trying out as dog guide instructors to write for information. Ages 21-26, good physical condition and stamina, outstanding character, interest in a lifetime career helping blind people achieve independence required. Previous experience with dogs not necessary, but knowledge of animals helpful. Should have at least high school education. Physical education majors or other college work in psychology or English with teaching as goal might prove highly desirable. Salary and other benefits are attractive. Address The Seeing Eye, Inc., Morristown, New Jersey.

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SENSATIONAL NEW longer-burning Light Bulb. Amazing free replacement guarantee—never again buy light bulbs. No competition. Multi-million dollar market yours alone. Make small fortune even spare time. Incredibly quick sales. Free sales kit. Merlite (Bulb Div.), 111 E. 32nd, Dept. C-74P, New York 16.

\$25.00 OR MORE in a day for part or full time route work. Large repeat orders. Man or woman. Write McNess, Dept., 27-E, Box 371, Baltimore, Md.

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30 cents per word, initial or group of numerals. Example, J. S. Jones, 100 Main Rd., Anywhere, N. Y. Phone Anywhere 15R24, count as 11 words. Minimum charge \$3.00. Blind Box Number \$2.80 extra, includes address. Send check or money order to AMERICAN AGRICULTURIST, P. O. Box 514, ITHACA, N. Y. Advance payment is required.

FARMS FOR SALE

FARMS—FINGER LAKES Area—all types and size farms. Retirement homes—hunting land. Lakeshore properties. H. M. Stocking Broker, Dundee, New York.

CHAUTAUQUA COUNTY: 336 acres with 200 tillable, good buildings, state highway, modern machinery, growing and harvested crops included. 70 cattle. League milk market, easily financed. Price \$45,000. Huffman Real Estate Chautauqua, New York.

STROUT CATALOG—Mailed Free! All types property. 162-page Fall edition. Over 3700 selected values. 466 offices Coast to Coast. "World's Largest". Strout Realty, 50-R E 42nd St., N. Y. 17, N. Y.

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VIRGINIA LIVESTOCK, dairy farms and country estates. P. M. Browning, Realtor, John H. Hitt, Associate, Culpeper, Virginia.

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BEES INSURE BETTER crop pollination. Profitable side line. Send \$1.00 for book, "First Lessons in Beekeeping" and four months subscription. Free literature. American Bee Journal, Box A, Hamilton, Illinois.

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FELLER'S AUCTIONEERING College. Free catalog. 225 South Schuyler, Kankakee, Illinois.

LEARN Auctioneering, term soon. Free catalog. Reich Auction School, Mason City 11, Iowa.

AUCTION SCHOOL, Ft. Smith, Ark. Free catalog. Also Home Study Course.

(Continued on Opposite Page)

ADDITIONAL CLASSIFIED ADS

(Continued from Opposite Page)

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BARN CLEANERS, silo unloaders, engineered by Patz. New different hunk feeders, manure stackers, replacement chains for all make cleaners, low cost, easy terms. Nold Farm Supply, Rome, N. Y. Willard Howland, South Ampton, Mass.

NEW—USED COCKSHUTT—Massey-Ferguson—Cobely farm machinery and parts service. Will trade and deliver. Someone needs your extra machinery let us sell it for you. Phone Lowville 85, or write to Ingersoll's Farm Supply Co., Martinsburg, New York.

WANTED — ALLIS CHALMERS Roto Tilers Brice Crescy, Andover, Ohio.

10-TON TRUCK HOIST \$199.99 — \$50 down. Can use agents. Dunbar Manufacturing, Chaska, Minnesota.

50 USED MILK coolers, top openers — all sizes—completely reconditioned. Also complete line of used farm machinery. John M. Saums Rt. 69 & 202 Circle, Flemington, N. J.

FOR SALE: JOHN DEERE 420 crawler tractor, good condition ready. John Deere Model G tractor, good, ready. John Deere B tractor. 1957 Cadillac Deville, 5 Shetland ponies, 2 colts. John Deere 6' #25 combine. E. B. Boulds, Nicholville, N. Y.

DEPRESSION PRICES We sell cheap. Save 75% off new and use tractor parts, crawlers, wheel tractors, 190 makes, models. Catalog ready. Send 25c Surplus Tractor Parts Corp., Fargo, N. Dakota.

WANTED TO BUY, small size apple grader and polisher. Idlewood Farm, 151 Hayden Rowe St., Hopkinton, Mass. Write or phone 435-3359.

HONEY

EXTRACTED HONEY clover, fall flower or buckwheat, 5 pounds \$2.10; 3 — \$5.75; 6 — \$10.50. Postpaid 4th zone. Paul C. Lang, Apiaries, Box A, Gasport, New York.

CLOVER CHUNK Comb Honey — 5 lb. tin \$3.00, postpaid. Robert Mead, White River, Vt.

OUR NEW HONEY is ready. Clover-wild flower sold 5 lb. pail \$2.00 pld., 60 lb. tins \$10.00 plus shipping charges. Sold by ton also. Nicholas Schaeffer, Cross Road, Lagrangeville, N. Y. 12540.

TRAVEL

HERE'S A TOUR so good that we give a written guaranty! Our 19 day, 10,000 mile Grand Circle Western Tour, 18 States, 5 Canadian Provinces, plus a visit to Old Mexico. See Grand Canyon, Boulder Dam, Las Vegas, Hollywood, Giant Redwoods; visit British Columbia, cross the Canadian Rockies and see Lake Louise by scenic bus in June, July and August 1964. But you must reserve early. The price is only \$339.00! Send now for free literature and start anticipating. Shanly International Corporation, 528-A Blue Cross Building Buffalo 2, New York.

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Beef Cattlemen's Short Course

THE thirteenth annual Beef Cattlemen's Short Course scheduled at Cornell University for January 20-24 will feature a variety of subjects. Topics such as feeding, breeding, marketing, management, health, feed production, and many others have been given a place on the program.

Highlighting the list of speakers will be Dr. E. J. Warwick, Chief of the Beef Cattle Research branch of the United States Department of Agriculture. Others appearing on the program will include breed association representatives, a number of successful breeders and feeders, marketing specialists and college personnel from a number of departments on the Cornell campus.

Both purebred and commercial producers were considered when the program was prepared. Although special emphasis has been given to subjects of interest to people new in the cattle business, anyone interested in beef production should find

the program worthwhile. Ladies are always welcome. So are "out-of-staters."

For copies of the program and additional information, get in touch with M. D. Lacy, Morrison Hall, Cornell University, Ithaca, N. Y.

HOLSTEIN FRIESIAN INSTITUTE MEETINGS

The eleventh annual Breeders' Institute program sponsored by the New York Holstein-Friesian Association is scheduled for eight meetings across the State during the week of December 2-6. The program is designed to interest dairymen of every breed affiliation.

This year's panel consists of Dr. J. C. Rennie, Ontario Agricultural College, Guelph; Mr. Ralph Evans, Manager of Hood's Cherry Hill Farm, Beverly, Massachusetts; and Mr. Herman R. Gelbke, owner with his father and brother of the famous Brezewood Farm, Vienna, Ohio.

Dr. Rennie will talk on type and conformation of dairy cattle; Mr. Evans will deal with cost and record-keeping systems; and Mr. Gelbke will talk about managing for 1,000 pound records. **Locations and dates for Institute meetings are:**

Dec. 2 — Grange Hall, Stanfordsville, N. Y. Senior High Gym, Schaghticoke, N. Y.

Dec. 3 — Grange Hall, Hallsville, N. Y. County Office Building Cafeteria, Norwich, N. Y.

Dec. 4 — Grange Hall, Newark, N. Y. and South Cortland Grange Hall, Cortland.

Dec. 5 — Agr. & Tech. Institute, Alfred, N. Y.

Dec. 6 — Pine Valley Central School, South Dayton, N. Y.

GOOD MARKET FOR LAND

WITH THE present great interest in alternative uses for land, owners of retired farm land are finding a ready market for their property if they want to sell.

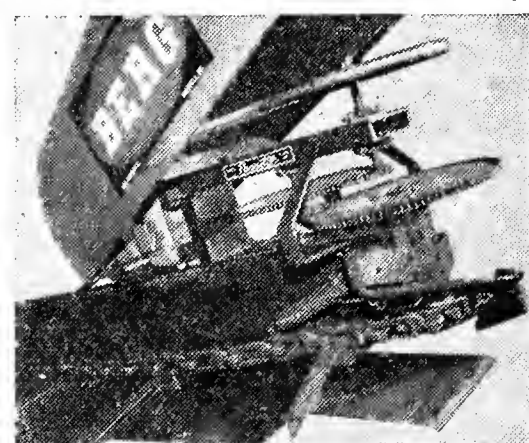
A recent survey of Tompkins County, N. Y., made by Robert W. Snyder, research associate, under the direction of Professor Howard E. Conklin of the New York State College of Agriculture, brought out some interesting facts. Tompkins was chosen as reasonably typical of the counties in the State, and the survey included 112 local property owners with 10 or more acres of land.

Seventy-five to 80 percent of the present owners acquired their property since 1945; about 30 percent since 1955. Except for retired folks, most were in their late 20's or early 30's, with their families still incomplete, when the property was acquired, and about half of them derived some income from their property in 1961, either from rental of land or buildings, or from spare-time farming.

The economists found that tracts of rural land are tightly held by owners who are productively employed in full-time jobs off the farm, or are past retirement age. The largest single group of owners are craftsmen, foremen, and others in the skilled labor group; sixty percent of them have a farm or rural background, and nearly half engage in some limited spare-time farming.

Eighty percent of the property studied was acquired in transfers of less than 100 acres, and smaller properties sell for a significantly higher price per acre than do the larger ones. For example, bare land sold for around \$35 an acre in tracts of 10 to 24 acres, but tracts of from 50 to 99 acres brought only \$20 per acre.

Skilled laborers and other purchasers strengthen the tax base in rural areas by bidding up the price of retired farm land as demand increases.



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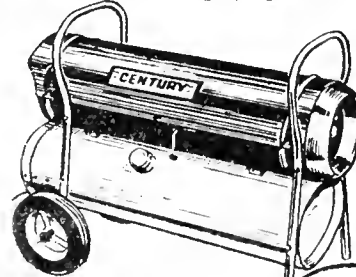
- ☐ Stalls and Stanchions ☐ Barn Cleaners ☐
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MRS. FOX WINS GINGERBREAD CONTEST

By Home Editor Augusta Chapman

THE BEST gingerbreads from 51 of New York State's Grange counties made the Service and Hospitality room in the Mark Twain Hotel at Elmira, N. Y., smell as good as a farm kitchen on baking day, the morning of October 29. This was the long-awaited day of the finals for the 1963 statewide baking contest sponsored jointly by American Agriculturist and New York State Grange.

Three competent judges worked almost six hours, tasting and rating each gingerbread. All of the finalists had won top honors in their own counties, so the competition was keen. Many scores were only a fraction of a point apart.

When the judges finished and the sealed envelope containing the maker's name was opened, it was found that the winner from Yates County, Mrs. Carl N. Fox, 205 Chestnut St., Penn Yan, N. Y., had won the coveted title of state gingerbread champion. Mrs. Fox is the mother of two married sons and has used the same gingerbread recipe for 35 years.

As the No. 1 winner, Mrs. Fox had her choice of the four grand prizes and selected the Fabulous 400 Tappan Electric Range with visual-hite oven and broiler and hideaway cooking top. Mrs. Fox also will receive \$25 from American Agriculturist, \$25 from Penick and Ford, makers of Brer Rabbit Molasses, \$3 from

New York State Grange, and a set of the grocery prizes listed in this story. Mrs. Fox's prize-winning gingerbread recipe is printed on Page 30 and appears just as she gave it to us.

Several of the winning contestants, including Mrs. Fox, were able to be at State Grange the following day to hear their names announced from the platform and to receive congratulations from American Agriculturist Editor Gordon Conklin and dozens of their fellow Grangers.

I reached second-place winner, 19-year-old Linda Town of R.D. 2, Kennedy, N. Y., Chautauqua County, just as she and her family were leaving for home after visiting friends in Owego. Had the call been five minutes later, I would have missed Linda! On hearing the exciting news, they stayed over another night, and Mr. and Mrs. Town, Linda's grandmother, and brother, Bruce, were all on hand Wednesday morning—as proud as they could be of Linda and the honor she had won.

Linda chose the Unico Electric Range with automatically controlled oven and appliance outlet which was awarded by Cooperative G.L.F. Exchange for her grand prize. She will receive \$43 in cash and the grocery prizes.

Mrs. John E. Bailey, R.D. 2, Beaver Dams, N. Y., Schuyler County, was



Photos: Lon Mattoon

American Agriculturist Editor Gordon Conklin congratulates the Gingerbread Contest winners who were present at State Grange on Wednesday morning, October 30. From left to right in the picture are Mrs. LaVerne Buckley, 10th place winner, Mrs. Mary Noftsier, 6th place winner, and the three top winners—Mrs. John Bailey, Linda Town, and Mrs. Carl Fox.

found to be winner No. 3. Mrs. Bailey has a 15-year-old daughter and an 11-year-old son. She started baking as a 4-H Club member and is still going strong! Mrs. Bailey also came to Elmira for the announcement and selected the Magic Chef Gold Star LP-Gas Range for her prize. This range has a clock-controlled oven and appliance outlet, thermostatic top burner, and a giant griddle. Mrs. Bailey will receive \$33 in cash prizes and, of course, the groceries that go to all of the top 10 winners.

Fourth-place winner, Mrs. Philip Tefft, R.D. 2, Greenwich, N. Y., didn't feel that she could make the five-hour trip to Elmira. Although Mrs. Tefft ranked No. 4 in the judging, she received her first choice of the grand prizes—the Monarch Marvelous "Modernique" Electric Range and Cabinet Base, with family-size double-decker oven and super-speed surface units. Mrs. Tefft also has the distinction of being the only winner this year who won in the 1954 Gingerbread Contest. Then, her entry was rated in 7th place. Mrs. Tefft told me, too, that she used the 1954

prize-winning recipe in all of this year's contests.

I am glad to report that another of our teenage Pomona winners ranked among the finalists and represented the other men who had won in their counties. Terry E. Donald whose address is R.D. 2, Moravia, N. Y., in Cayuga County, came in No. 11 in the judging.

Nearly 4,000 Grangers have taken part in the Gingerbread Contest since it began last January in the Subordinate Granges. Local winners moved on to the county contests, and the county champions to the finals. Mrs. Dorothy Scofield, Otego, N. Y., Chairman of the 1963 State Grange Service and Hospitality Committee, and I have directed the contest for the State. We were assisted by two other members of the State Committee, Mrs. Agnes McHeffey, Heuvelton, N. Y., and Mrs. Lizzie Houck, Dundee, N. Y., as well as almost 1,000 Subordinate and Pomona chairmen.

In addition to the grand prizes already described, grocery prizes were

(Continued on Opposite Page)



Tappan representative, Joseph Haagan, shows No. 1 winner, Mrs. Carl Fox, the Fabulous 400 Tappan Electric Range she chose for her grand prize.



Linda Town, second-place winner, and Home Editor Augusta Chapman admire Linda's grand prize, the Unico Electric Range awarded by Cooperative G. L. F. Exchange.



To winner No. 3, Mrs. John Bailey, went the Magic Chef LP-Gas Range. In the picture Mrs. Bailey examines the giant griddle which will bake a stack of pancakes at one time or grill a lot of hamburgers!

(Continued from Opposite Page)

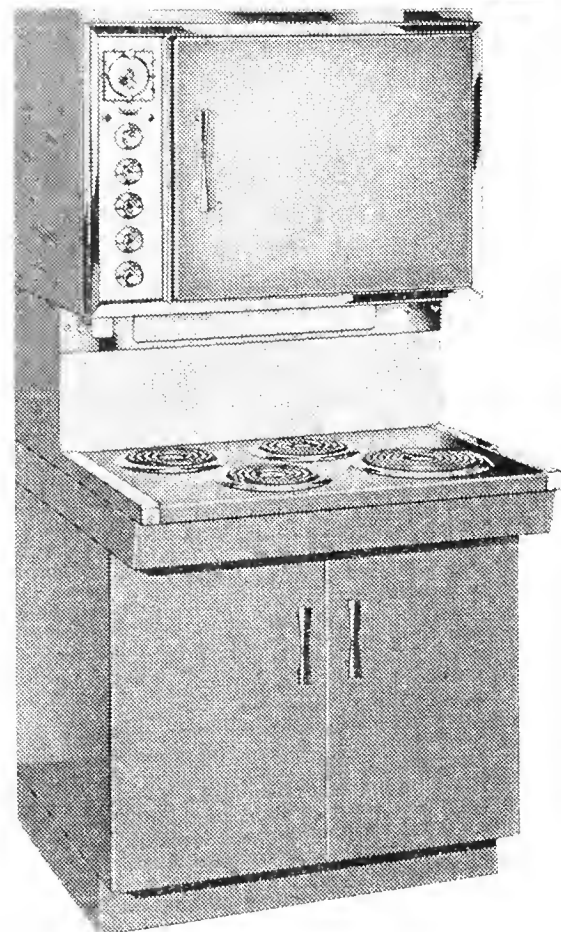
awarded by American Agriculturist advertisers, as follows:

From Cooperative G. L. F. Exchange—Five pounds each of the following G. L. F. products: Cake Flour, Quality Pastry Flour, Pancake Mix, Quality Patent Flour, and a 4-pound bag of First Lady Butter-milk Pancake Mix.

From Penick & Ford, Ltd., Inc. — A 24-ounce can of Davis Baking Powder; 12-ounce cans of Cocomalt, Creamy White Swel and Creamy Fudge Swel; twelve 12-ounce bottles of Brer Rabbit Molasses; one case of My-T-Fine Lemon Pie Filling, plus recipe folders and Quick-Mix Charts.

Cash awards for the contest amounted to \$350. These included a \$3 entry prize from State Grange to each of the 51 finalists; \$107 from American Agriculturist distributed among the top 15 winners, and \$90 from Penick & Ford who had offered to duplicate American Agriculturist cash prizes if the winners had used Brer Rabbit Molasses in their entries. Only four of the 15 top winners had not used this brand of molasses.

The 1964 American Agriculturist-State Grange baking contest will feature Yeast Coffee Cake. Each participant will be able to bake her favorite version of this popular yeast product and use as much imagination and originality as she wishes in decorating it. Plan now to enter the 1964 contest. It's lots of fun, and you could be one of the state winners next October!



Mrs. Philip Tefft, winner No. 4, did not get to Elmira, but sent me her picture. At right is Monarch Range representative, Harold Tomlinson, and below is the Monarch "Modernique" Electric Range, Mrs. Tefft's first choice of the grand prizes.

15 TOP WINNERS

1. Mrs. Carl Fox, Penn Yan, Penn Yan Grange, Yates Co.
2. Miss Linda Town, Kennedy, Kennedy Grange, Chautauqua Co.
3. Mrs. John Bailey, Beaver Dams, Olive Branch Grange, Schuyler Co.
4. Mrs. Philip Tefft, Greenwich, Bottskill Grange, Washington Co.
5. Mrs. Minnie Harloff, Mendon, Mendon Grange, Monroe Co.
6. Mrs. Mary Noftsier, Castorland, Belfort Grange, Lewis Co.
7. Mrs. Lois Anthony, North Rose, Rose Grange, Wayne Co.
8. Mrs. Leslie Arner, Amsterdam, Florida Grange, Montgomery Co.
9. Mrs. Elwin Lampher, McGraw, Freetown Grange, Cortland Co.
10. Mrs. LaVerne Buckley, Collins, Collins Center Grange, Erie Co.
11. Terry E. Donald, Moravia, Moravia Grange, Cayuga Co.
12. Mrs. Florence C. Bonnell, Liberty, Liberty Grange, Sullivan Co.
13. Mrs. Anne Poshadel, Middletown, Otisville Grange, Orange-Rockland County.
14. Mrs. Edna Horner, Fulton, Lamson Grange, Onondaga Co.
15. Miss Helen Parmelee, LeRoy, Oatka Falls Grange, Genesee Co.



Pictured above are grocery prizes given the ten top winners by Cooperative G. L. F. Exchange and Penick & Ford, Ltd. Linda Town is telling brother Bruce Town that since she used Brer Rabbit Molasses in her winning gingerbread, she will also receive \$20 in cash from Penick & Ford. At extreme left in the picture is Mrs. Lizzie Houck, member of the State S. & H. Committee. Mrs. Fox and Tappan representative Joe Haagan are at right.

American Agriculturist, December, 1963 —

Cranberry Christmas Canes!

Tender flaky cookie-buns...easy with Fleischmann's Yeast and this new no-knead no-rising refrigerator recipe!

Scald 1 cup milk; cool to luke-warm. In large bowl mix 4 cups unsifted flour, ¼ cup sugar, 1 teaspoon salt, 1 teaspoon grated lemon peel. Cut in 1 cup Fleischmann's Margarine until like coarse meal. Dissolve 1 package Fleischmann's Active Dry Yeast in ¼ cup warm water (105°-115° F.). With flour mixture blend yeast, lukewarm milk and two beaten eggs.

Cover dough tightly; refrigerate for at least 2 hours (or up to 2 days). When ready to bake, prepare filling. In a pan mix 1½ cups finely chopped cranberries, ½ cup sugar, ½ cup raisins, ⅓ cup chopped Planters Pecans, ⅓ cup honey and 1½ teaspoons grated

orange peel. Over medium heat bring to a boil; cook for about 5 minutes. Cool.

Divide dough in half. Roll one half into 18" x 15" oblong. Spread with half of filling. Fold dough into 3-layer strip 15" long.

Cut into 15 strips. Holding ends of each strip twist in opposite directions. Pinch ends to seal. On greased baking sheets shape top of each strip to form cane. Repeat with rest of dough and filling. Bake at 400° F. 10-15 minutes or until done. Cool. Frost with confectioners' sugar frosting.



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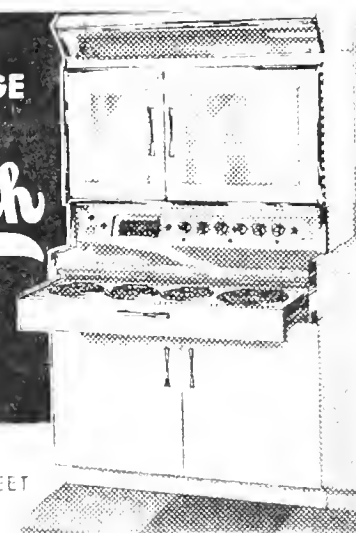
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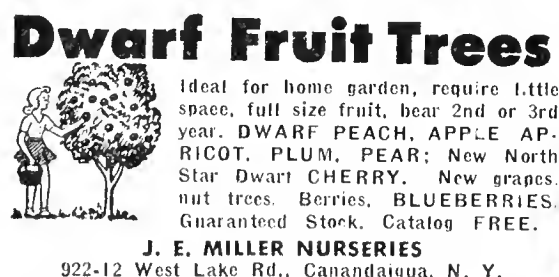
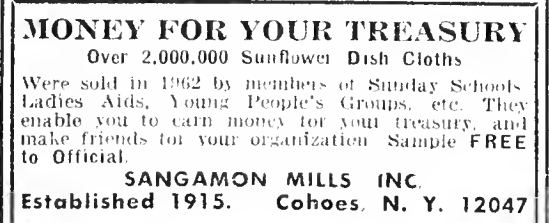
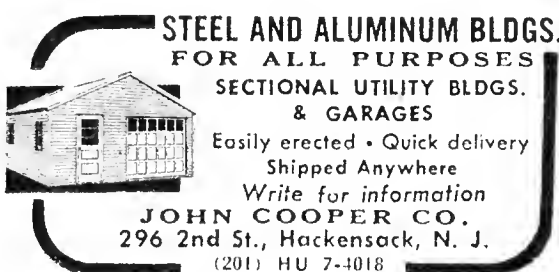
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Now! You can get the fast relief you need from nagging backache, headache and muscular aches and pains that often cause restless nights and miserable tired-out feelings. When these discomforts come on with over-exertion or stress and strain—you want relief—want it fast! Another disturbance may be mild bladder irritation following wrong food and drink—often setting up a restless uncomfortable feeling.

For quick relief get Doan's Pills. They work fast in 3 separate ways: 1. by speedy pain-relieving action to ease torment of nagging backache, headaches, muscular aches and pains. 2. by their soothing effect on bladder irritation. 3. by their mild diuretic action tending to increase output of the 15 miles of kidney tubes.

Find out how quickly this 3-way medicine goes to work. Enjoy a good night's sleep and the same happy relief millions have for over 60 years. For convenience, buy the large size. Get Doan's Pills today!



THE NICEST GIFT

By Esther Tierney

AT CHRISTMAS you're lucky if you live on a farm! With a farm kitchen, a farm cellar, and a farm woodlot at your command, you can send your town and city friends the nicest gifts of all. We discovered this at our house last winter when heavy snows made shopping an almost impossible chore. Every gift that went out was a product of the farm.

Most farm folks have many friends and relatives who live in the city. Since farm people have the resources of the country at their command all the time, they find it difficult to believe that city folks love to get a box of the things that seem so ordinary to the country dweller. Not until they try it and the "thank you" notes start coming back, do they realize that Christmas gold is all around them.

At Christmas time, packing material is, always in short supply around our house, and last year this was truer than ever. So every gift that went out, providing it was not going to a section of the country where there is a plant quarantine, was packed in spicy evergreens. We saw to it that most of the branches were large enough to be used as decorations, and that a few of them still kept their cones and berries. We also tucked in a few sprays of rose hips and wild barberry.

Our gift to a friend who likes to make arrangements was a large box of wild grasses, cat-o-nine tails, milkweed pods, pussytoes, and seed pods of all kinds. We keep a large supply of this stuff for our own winter decorations, and we simply shared it with our friend instead of throwing half of it out, as we usually do every spring. She loved it.

To a friend who likes to cook, we sent small jars of our own freshly dried herbs. We added a jar of catnip for her beloved cat.

The friends who love to eat were easy. They were the tickled recipients of large jars of our specialties. Every farm wife has a few—something that she makes just a little better than anyone else. Our specialties are mango peppers and a very fine crisp, sour-sweet cucumber pickle, made according to my grandmother's recipes. Along with these went small jars of wild strawberry jam and wild grape jelly. Special friends were further fattened with jars of buckwheat honey, a rarity now when so little buckwheat is grown.

Every farm, too, has its own rarities. Perhaps you are one of the lucky ones whose woods provide a plentiful supply of nuts—hickory-nuts, butternuts, or black walnuts. If so, there is no better way to please a city friend than to send a box of nut candy or cookies, or just a box of the shelled nuts.

One box we mailed last year, and perhaps the prettiest one, contained a large winter squash for a friend's Christmas dinner. This was surrounded by a dozen small fancy gourds which we had washed and shellacked lightly. These decorative gourds are expensive in the specialty shops and not always easily found. Nestling in their packing of evergreens, they made a very gay gift, and the recipient was extremely pleased.

If grey birch is native to your woods, it is easy to make candle holders out of pieces of fallen limbs, cut to the desired length. We made

our candle holders between 10 and 12 inches long, from limb pieces about 4 inches in diameter. We shaved half an inch or so off one side of the wood so the holders would set solidly; then, on top about 2 inches from each end, we bored candle-sized holes, an inch or so deep.

Next, the decorations were glued or tacked on. For this we used pine and hemlock, combined with winter berries and tiny cones which had been dipped in silver or gold colored paint. On some of these, and while the paint was wet, we sprinkled sparkles of one sort or another. It is possible now to get a spray which will fireproof decorations such as these.

All the jars and containers were made to look as festive as possible, of course. If you have evergreens and berries to work with, use them lavishly. Unlike store-bought ribbons and tinsel, the evergreens will not land immediately in the wastebasket, but will add for a while a bit of country charm to a city table.

DECORATING BOOKLET

A new, colorful 12-page booklet, titled "The Wonderful World of Light for Christmas," has been published by Westinghouse. This booklet is illustrated with photographs (some in full color) and sketches. Shown are decorated exteriors of the whole house, close-ups of doorways, and ornaments for use indoors on mantel, table, wall, or in a window.

Tree trimmers will find a chart listing the recommended number of lights for trees from 4 to 10 feet tall. There are pointers on how to arrange strings of lights for the most eyepleasing effect, and safety hints on how to protect the tree itself from becoming a fire hazard.

Miss Myrtle Fahsbender, editor of the booklet, says to accent with light those features of which we are proudest by day and which deserve to be seen and appreciated at night too. She adds, "But whatever you do, don't over-decorate, either indoors or out. Light is a decoration in itself, and the success of decorating with light does not depend on costly and lavish displays."

Copies of "The Wonderful World of Light for Christmas" are available for 25¢ each (in stamps or coin) from Westinghouse Lamp Division, Box 388, Bloomfield, N. J.

* * *

People of India spend 60 percent, the Japanese 42 percent, and Italians 45 percent of their income for food.



STAR QUILTS is the latest and tenth in our Quilt Library Series! You'll want to add this to the other nine books because it contains 12 of the loveliest star designs for quilts that you've ever seen! Some are pieced and some are appliqued—all are beautiful. Order Quilt Book Q-110 today.

Send 50 cents IN COINS, along with your name and address, to AMERICAN AGRICULTURIST, 1150 Avenue of the Americas, New York 36, N. Y.

SO MAY WE COME

By Edith Shaw Butler

Again we hear the Christmas story told
Of shepherds watching o'er their flocks
by night;

Of wisemen crossing desert sands of old,
A village inn, a babe, a shining light,
And wonder on the sweet young Mary's face

As she beholds the gifts the Magi bring;
The rich and poor come to a stable place
To kneel before their long awaited King.

Though centuries have passed this
message still

Has power to stir the hearts and faith
of men,

As long ago on a Judean hill
The angels' song brought hope to man-
kind then.

So may we come, the Star still points
the Way,

Christ waits for us at Bethlehem today.

MRS. FOX'S GINGERBREAD

1/2 cup butter	1 cup hot water
1/2 cup sugar	2 1/2 cups flour
1 egg, beaten	1 1/2 tsp. soda
1/2 cup Brer Rabbit molasses (dark)	1 tsp. ginger
1/2 cup Brer Rabbit molasses (light)	1 tsp. cinnamon
	1/2 tsp. cloves
	1/2 tsp. salt

Cream butter, add sugar and egg, then molasses. Add dry ingredients, sifted together, and lastly the hot water. Beat well. Bake at 350°, 35-40 minutes. (This recipe is enough for a 9 x 13-inch pan.)

Editor's Note: Mrs. Carl N. Fox, 205 Chestnut St., Penn Yan, N. Y., won first prize in the statewide Gingerbread Contest sponsored jointly by American Agriculturist and New York State Grange. The above recipe is printed just as Mrs. Fox gave it to us.

The **AA** Clothes Line

9089. Cobbler apron or tunic top—handy to slip over skirts and dresses. Printed pattern in Half Sizes 12½-24½. Size 16½ takes 2½ yards 35-inch fabric. 35 cents.

4981. Sporty pullover and culotte skirt—perfect winter duo. Printed pattern in Misses' Sizes 10-20. Size 16 pullover takes 1½ yards 54-inch fabric; skirt, 1½ yards. 35 cents

9195. Becoming casual with tucked bodice, six-gore skirt. Printed pattern in Half Sizes 14½-24½. Size 16½ takes 3½ yards 35-inch fabric. 35 cents.



9195
14½-24½



9089
12½-24½

4981
10-20



9077
S-10-12
M-14-16
L-18-20



4573
10-18



4635
14½-24½



4635. Scoop-neck style with tabs and bias trim. Printed pattern in Half Sizes 14½-24½. Size 16½ takes 4½ yards 35-inch fabric. 35 cents

4573. Slim and smart—easy raglan sleeves, set-away collar. Printed pattern in Misses' Sizes 10-18. Size 16 takes 3½ yards 39-inch fabric. 35 cents.

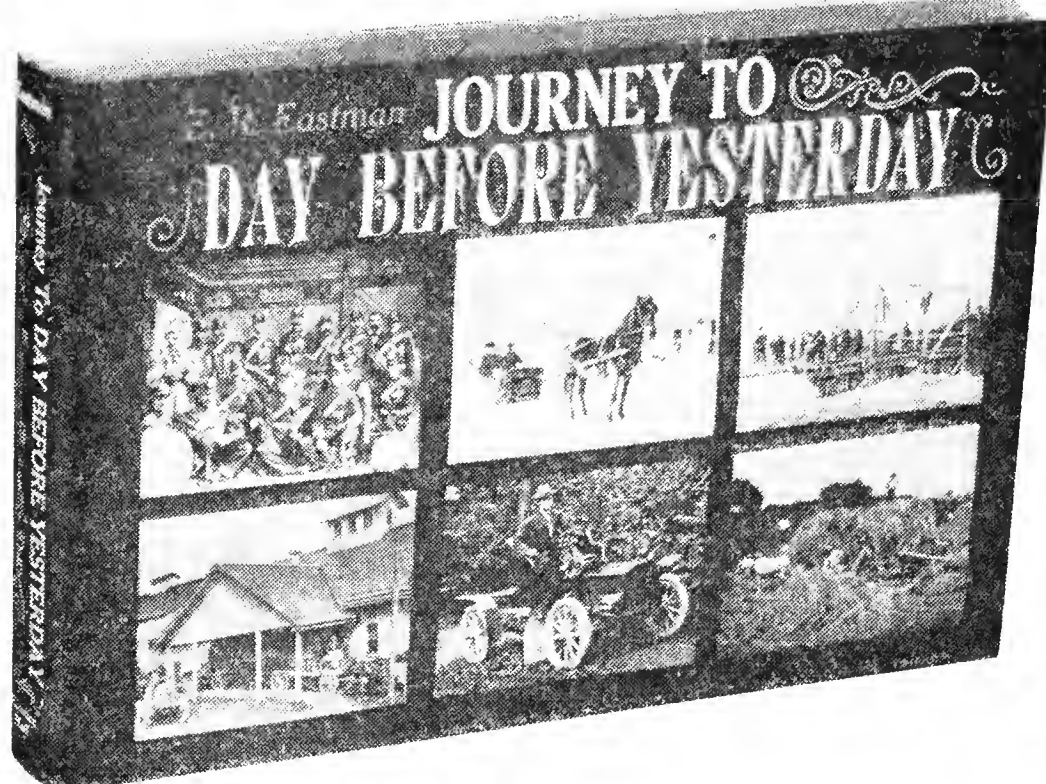
9077. Apron to sew in two lengths, matching sunbonnet. Printed pattern in Misses' Sizes 10-20. Medium-size (14-16) short apron takes 2½ yards 35-inch fabric; bonnet, ¾ yard 35 cents

4620. Graceful dress for the larger figure — criss-cross tabs, six-gore skirt. Printed pattern in Women's Sizes 34-48. Size 36 takes 2½ yards 45-inch fabric. 35 cents.

4620
34-48

Patterns are **THIRTY-FIVE CENTS EACH**. Send orders (with coin) to: **AMERICAN AGRICULTURIST**, Pattern Department, Box 42, Old Chelsea Station, New York 11, New York. Please write name, address, pattern size and numbers clearly. Send 50 cents for Catalog of Printed Dress Patterns. See **COUPON** offer inside for one **FREE** pattern.

RURAL AMERICA'S OWN . . .



Richly illustrated with photos, old prints, and line drawings, here is a nostalgic journey to rural America at the turn of the century. Written by E. R. Eastman.

Many of you will recall long-ago days on the farm — haying time, sleighing time, trips to the blackberry patch. Then there were the corn huskings, the old country store, Fourth of July picnics, country fairs, and "the old swimmin' hole."

Here's a book for EVERYBODY wherever you live. A book for those who remember when life was less complicated — and for those who want to know about Grandpa's shenanigans when he was young in the horse and buggy days. With warmth and humor, Ed Eastman vividly recalls anecdotes and experiences of days that have faded in memory but will never really be forgotten. He writes about the doctor—the peddler—the blacksmith—the barber—and many others from long-ago times.



Some of the chapters are:

- **Borning Ground**
- **Neighbors — cantankerous and otherwise**
- **Store clothes—"hand-me-downs" and such**
- **The Country School and Church**
- **Family Stories**

A delightful journey with return trip ticket guaranteed. This treasure book is a gift to give and to own, not only at Christmas but for the whole year. It is beautifully done in album size, with nearly 300 pages and over 100 historical pictures.

Send check or money order for \$5.95 to **AMERICAN AGRICULTURIST**, Department Book, Savings Bank Building, Ithaca, N. Y., and your copy will be mailed postpaid.

The QUESTION BOX



Is there a chart that tells the different weights of pecks, bushels, etc. for the different kinds of vegetables and fruit?

For most products there is no standard or legal weight, but a bushel is a standard volume. In New York State a bushel of potatoes is usually assumed to be 60 pounds, but it is legal to sell a level bushel basketful, which may be as little as 50 pounds, depending on the potatoes and how much it has been shaken down.

The Department of Agriculture takes the position that it is impracticable to define a unit of volume of fruits and vegetables in terms of weight because the weight of such commodities is likely to vary with

variety, size, condition, and tightness of pack, etc. In lieu of weights, the Federal government has fixed standard sizes of certain commonly-used containers. It is interesting to note, however, that in nine of our states a bushel of apples will weigh 30 pounds, in seventeen others it will weigh 48 pounds—and other weights in between for a few other states. Onions can vary from 57 pounds to 50; pears from 58 pounds to 36; turnips from 60 pounds to 42 — and so on.

I am sending you a gas and oil lease form which I have been asked to sign. Please advise me whether the provisions in it are generally acceptable.

In general, this lease is the standard one used by companies that are exploring for gas and oil. The rates of remuneration are standard for any lease with an oil or gas company, or with any dealings that we have had with them. To answer the question as to whether or not you should sign the lease, you need to know a number of facts:

1. Are you on the edge of an area that they are leasing, or are you in the center?

2. How much acreage do you control?

3. Have they put any test wells down in the area, and struck gas or oil?

If they have struck gas or oil in the area, then it becomes more important that you enter into a lease with them, because it is only in this way that you can have a chance of recovering any value that you may have for oil and gas under your land. If your acreage is small and you do not sign, the company can lease the land all around you and ring your property with wells,

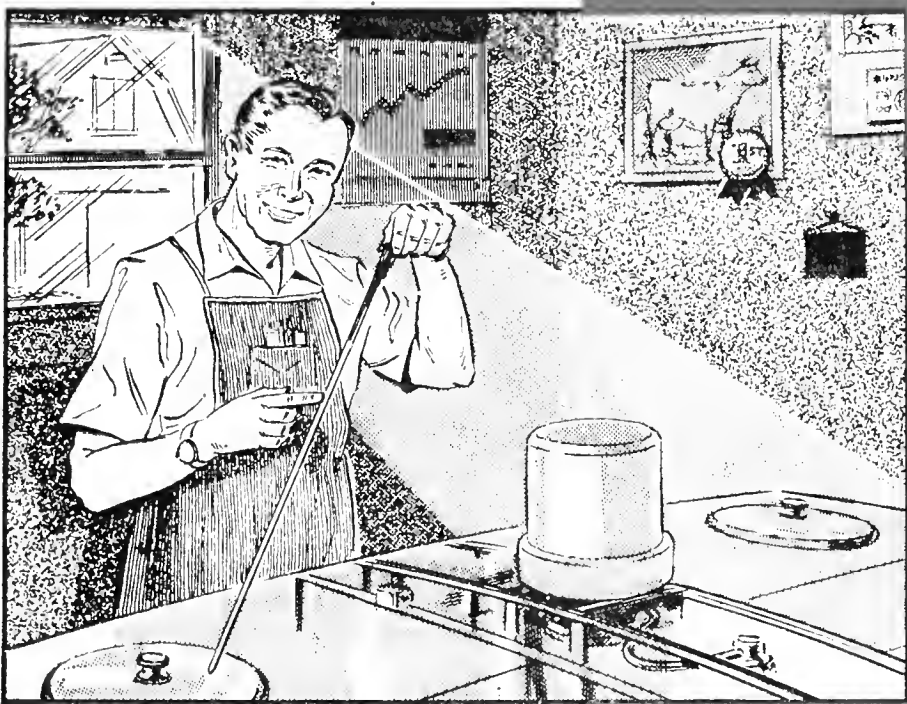
pump the gas and oil out, and not have to pay you anything, under the terms of this lease.

This is possible under this lease, because it does not provide for a "pooling" arrangement. Leases usually have an arrangement whereby they will pool acreages around wells and proportion the production of the well to the individual owners on the basis of the acreage they have that is served by a particular well. The minimum area that I have seen in leases on pooling is 640 acres.

The second point I notice in this lease that I would want to talk with them about is the rate of payment for putting down wells for gas storage. The figure of \$100 per well seems low to me.

In summing up, I would say that if you have a small acreage, less than 300 acres, I would advise discussing signing a lease with the company. I would make an effort to get the price for putting a well down for storage purposes in the neighborhood of \$1,200 to \$1,500 per well.

If you have legal questions, you should consult an attorney, and preferably one who has had experience with oil and gas leases.—R. M. Fellows, National Farm Consulting Service, Ithaca, N. Y.



The Curtiss 'COMPLETE COW' Program Pays Off!

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That's right! Over 90% of the total increase in artificial breeding in New York and New England last year was CURTISS increase!

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that build your "keep home" pay — big Production PLUS standout Type, money-making Lasting Power and regular, Brood Cow Reproduction of herd-improving offspring.

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I am having difficulty with paint peeling on my walls, although I used a good paint. What can I do about it?

There are many reasons for paint failure. Some are fairly obvious, but others are most difficult to track down. I think my first step would be to attempt to call in someone from the company that supplied your particular paint.

You indicated a good cold water paint—this might be a casein or a latex base product—probably not a kalsomine or whitewash type. The problem could be the lack of compatibility of the plaster wall with the particular product. The lime in certain plasters does this even though it may have been in place for many years.

Moisture will often cause difficulty, but I question this in your case—though I wouldn't rule it out. The possibility of many shower baths, a laundry drier, humidifier on hot water radiators, etc. could cause this.

— Professor E. W. Foss, Cornell University

I sell rabbits for meat. Does New York State law require me to slaughter them only at inspected premises?

Article 5-B of the Agriculture and Markets Law, passed by the 1962 Legislature, pertains only to the following species: cattle, hogs, sheep and goats, horses, other large domesticated animals. It does not cover poultry and rabbits. This law does not affect your operations in connection with the slaughter and sale of rabbits.—Dr. William E. Jennings, Director of Meat Inspection Service





The cows seem to enjoy the visitors to the dairy display in Toronto.

How Canadians Do It

By Herb Kinnear, Babson Brothers Co.

LATE THIS spring, members of the Toronto Milk Producers Association put on the road a portable milking display. It consists of two mammoth trailer units of original design. One looks like a small hip roof barn and houses six cows; the other contains the latest-style dairy equipment, including a milking parlor with two diagonal stalls and a low-line pipeline milking system.

Folks coming to the shopping center are fascinated by the milking panorama that unfolds before them. Many of them have never seen a cow before. Cows are fed and milked, with the milk clearly visible as it surges from space age breaker cup machines.

The visitors appear spellbound as they watch the milk being collected in a glass receiver, then see it pumped into a bulk tank in an adjoining room. When each milking is over, the equipment is washed automatically. They are impressed with the high degree of sanitation throughout. After each demonstration, fresh, cold pasteurized milk is served free to all guests.

Mistress of Ceremonies is Mrs. Catherine South, 1963 Canadian

Dairy Princess, mother of two milk-drinking youngsters and wife of a dairy farmer living near Brampton. Each week the display (and Mrs. South) moves to another shopping center, where she and the "Queens of the Milking Panorama" play before thousands more city folk.

Some of the unusual questions asked include: "Do your cows have hoof and mouth disease?" and "How many tons of feed does a cow eat in a year?"

Mr. J. E. Harris, merchandising manager for the Dairy Foods Service Bureau, claims that this mobile unit has helped to correct false impressions of dairymen and dairy farming in general. The unit is put on the road through the cooperation of the milk producers, a dairy farm equipment company, a power company, and others with a stake in the dairy industry.

Toronto Milk Producers have found this an ideal way to carry on a program of public relations for agriculture. By showing the dairy industry as a modern, efficient business operation, they are doing more than selling milk — they are building friends for the future.

Some Woodlot Wisdom

ROBERT McCLELLAN, a farmer near Geneseo, New York, offered some advice to woodlot owners at the last meeting of the New York State Forest Land Use Conference. He arrived at these conclusions from experience with his own 55 acres of woods on a 300 acre beef cattle and cash crop farm. Here are his recommendations:

First — Make an objective analysis of your woodlot. Must it be harvested or is it serving a purpose hitherto unrecognized?

Second — If it has marketable timber, be sure you have an outlet for your product, within a reasonable distance, and ensure that your net return compares favorably with other ventures requiring the same manpower and machinery. Work with your Forest Practice Board.

Third — If it has no market value, explore its potential as a public recreation ground. But, do not be carried away by dreams of grandeur. Analyze your potential market, investigate your competition, antici-

pate the change in your real estate taxes, and ask yourself why you have not aspired to the role of garbage collector, chief complaint clerk, or park attendant until now.

Lastly — If you cannot logically turn your woodlot into dollars, don't turn on it as a hated thing. Use it for your family, your friends, and even for the people you have been giving permission to use it free for years. There is a growing need for more reflection and philosophy, and a dwindling environment in which to nurture these things. Be thankful that you still own a corner on tranquility.

POLO YET

Several central New York communities are fielding polo teams. Cortland, Manlius, Ithaca, and Skaneateles are examples. If you like action, competition, and horses this game will suit. Some of the polo ponies are pretty near as versatile as a good basketball player, and much faster.

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ASSORTMENT

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CHRISTMAS CARDS

With envelopes, plus stringed tags and gaily colored seals for your packages. Sent postpaid when you order your own or a gift subscription.

We have been sending similar gifts to subscribers each fall for several years BUT WE'VE NEVER HAD A NICER CHRISTMAS PACKAGE FOR YOU!



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Enclosed is \$—— for a gift subscription for a friend for the term I've checked. Also send the 100-piece Christmas assortment at no extra charge.

☐ 1 Year \$1 ☐ 3 Years \$2.50 ☐ 4 Years \$3

Friend's name _____

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Your address _____

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EXTEND MY SUBSCRIPTION

Yes, I want the Christmas assortment mailed to me at no extra charge. Enclosed is \$—— for the term I've checked below.

☐ 1 Year \$1 ☐ 3 Years \$2.50 ☐ 4 Years \$3

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ED EASTMAN'S PAGE



A STORY WITH A SEQUEL

Some of you will remember that in the September issue of *American Agriculturist* I told the story of a great cow, a young purebred Jersey by the name of Sybil that I sold to Mr. Nelson Brownell of Dryden, New York. After he bought her, Sybil produced an entire dairy of Jerseys, every one of which produced annually 10,000 lbs. or better of high-test milk. It was an impressive story of what one good cow can do. Mr. and Mrs. Brownell and myself were all proud to have owned her.

That interesting personal story has a sequel. Because Mr. Brownell no longer had land enough on his own farm to keep a dairy, he was obliged to sell his entire herd, all descendants of Sybil.

Mr. and Mrs. George Bargstedt, a young couple in the dairy business at Fonda, New York, read my article about Sybil and, fearing that someone else would beat them to it, jumped into their car and lost no time in hurrying to Dryden to buy Mr. Brownell's herd.

Mrs. Bargstedt wrote me stating that her husband is 26 years old and she 24. She told me how enthusiastic they are to have such a fine opportunity to add these great cows to their herd.

Thus does the influence of one good, well-bred animal have on generations to come, just like the influence of a well-lived human life.

FARMERS CAN STICK TOGETHER

Judging by the reports at the annual meetings this fall of the general farm organizations and farm cooperatives, most of which I have read, these organizations have had a very successful year, in some cases the best ever. They have maintained or increased their membership, kept the interest and enthusiasm of their members, and several of the cooperatives have done business running into many millions of dollars.

As I read these reports, I couldn't help remembering the time 40 years ago when I started editing a farm paper when just about everybody—including many farmers themselves—said that farmers could not stick together. We have lived to prove that statement false. In the United States today there are at least 10,000 farm cooperatives, large and small, a great majority of which are successful in every way. And the national farm organizations like the Grange and the Farm Bureau are going stronger than ever.

The danger to the future success of these organizations, and therefore to **your** success, is that you may take them for granted and not realize how important they are in safeguarding your interests. With

the number of farmers growing less and less all of the time, you are more dependent than ever on your organizations and cooperatives to fight your battles both with the politicians and in the market place.

TO MOTHERS

A young college freshman came to me this fall because she was so upset that she couldn't concentrate or study. In talking with her it was difficult to find anything really the matter, and finally I said.

"Julia, you seem to have everything—a good home, no worry about finances, good health, a nice

Because of the complications and hurly-burly of modern life, and because it is necessary for so many of you mothers to work outside the home, I wonder if you are not losing touch with your young sons and daughters.

Do you know what they are thinking? Do you take time to listen to them? When they come home from school in the afternoon, they are just bubbling with enthusiasm about the news and activities of their school life. They want very much to share that enthusiasm and their experiences with the person closest to them in the world—YOU, their mother.

If you are a mother who is employed outside the home, do you set aside a time in the evening to discuss with your children the interesting events of the day?

I know a young mother who has made it a point to talk and listen confidentially to her young daughters while they wash and dry the dishes together after the evening meal. Maybe that's a suggestion for you.

Psychologists say that the best time in the world to get and keep

JOURNEY TO DAY BEFORE YESTERDAY

It's not good to live all the time in the past, as some older people do, but it is good for those of us over fifty to remember the happy things of the past and the association of old friends now gone.

It is good also for those under fifty to know how people lived, worked, and had fun when Father and Grandfather were young.

Of all the many interesting books that Ed Eastman has written, his latest one—*JOURNEY TO DAY BEFORE YESTERDAY*—is the best. I have read the manuscript so I can tell you that, whether you are young or old, if you once start reading this beautifully-bound book, with all of its adventures and fun, and over a hundred old-time pictures, you will not want to put it down until you have finished it.

I can think of no better Christmas present for twice the money than *JOURNEY TO DAY BEFORE YESTERDAY*.

Send your check or money order for one or more books at \$5.95 each, postpaid, to American Agriculturist, Department Book, Savings Bank Building, Ithaca, N. Y. —M.E.R.

HOW ABOUT A GOOD BELLY LAUGH?

I don't think that people laugh as much as they used to. Do you? How long has it been since you cut loose and laughed hard enough almost to shake the rafters?

There is so much to be said for laughter, not the least of which is that it is good for one's health. Here are some of the many things that the Pennsylvania Medical Society has to say about it:

It refreshes the weary,
It's the language of peace and sympathy,

It increases the oxygen supply,
A good belly laugh is good exercise for the digestive organs,

It is to the human body what sunshine is to vegetation,

It can offset the frustrations and bitter experiences of life.

More than anything else, laughter adds to the joy of life. Therefore, laugh even if you have heard the old worm-eaten Chestnuts before!

HOW IS YOUR WATER SUPPLY?

No one living here in the Northeast needs to be told how serious the drought was this fall. Every source of water has been tested to the limit. If yours failed to meet the test, it is time to think about it and to plan better water facilities so that you will not get caught again.

EASTMAN'S CHESTNUT

A man and his wife went to a concert given by a famous orchestra. The man was completely enthralled by the music, and particularly by the beauty of one refrain.

Having no program and seeing a sign on the side of the stage the man went forward during the intermission hoping to get the name of the piece which had so pleased him. When he got where he could see the sign, he read:

REFRAIN FROM SPITTING.



Christmas Prayer



AS WE come again to another Christmas, Father, we pray Thee to help us remember what Christmas is really for and why we celebrate it.

We older ones remember, God, the days of our childhood and the Christmas times of other years when life was simpler; when maybe we got only a stick of striped candy or an orange or perhaps one inexpensive gift. But the presents — many or few — mattered little because with them went Love in abundance—the greatest gift of all.

Teach us to remember, Lord, that though we may load the

Christmas tree to the breaking point and heap high the presents, if Love does not go with them, they are but trash.

We pray Thee, God, to let our hearts so be filled with love that we realize always that it is more blessed to give than to receive.

Help us, Lord, we pray Thee, while living in this complicated and difficult age, to put first things first; help us to winnow the wheat from the chaff; always remembering that material possessions are temporal while the qualities of the spirit that Jesus taught and practiced are eternal—the greatest of which is Love.

personality, and best of all, you have your youth, with nearly all of your life ahead of you. Why are you so upset? What do you think is the matter with you?"

She started to cry and said: "I feel so insecure."

"But why," I persisted, "why are you so insecure?"

And she answered, "It's because Mother has been so busy with so many other things that she never had much time for me, so I feel so alone."

In counseling with hundreds of young college students in the last two years, I find that many of them seem to have Julia's trouble. They are sort of lost because some way or other they have gotten out of touch with their mothers. The understanding between mother and child should be the most steady influence in the life of a young boy or girl.

close to your child is at bedtime. When the youngster is rushing around at play during the day, what you say to him may not make much of an impression. But when you are talking to him at bedtime, when his guard is down and his subconscious mind is open, that is the time to make the deepest impression, get close to him so that he will tell you his innermost secrets, and you can tell him what is right and what is wrong.

I am sure that you mothers will agree that no matter how important your other activities and duties may be, there is nothing so important as getting and keeping the confidence of your child and making him feel you are his friend. It will give confidence and security.

I would be glad to have some short letters with suggestions from you mothers out of your own experience on how to keep spiritually close to your children.



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Mrs. Alfred Jones, Rushford	\$5.75
(refund on books)	
Mrs. Elizabeth Utter, Sidney	18.45
(refund on shoes)	
Mr. Arthur R. Glover, Shortsville	15.00
(payment on acct.)	
Mr. W. W. Bodine, Clarence	28.58
(ins. settlement)	
Mrs. Ruth Fotorny, Binghamton	100.00
(ins. settlement)	
Mr. Guy Farrand, Rathbone	17.00
(refund on parts)	
Mr. Warren Fairbrother, Avoca	72.00
(refund on parts)	
Miss Marjorie A. Banuat, Margareville	9.98
(refund on uniform)	
Mr. Leonard Sohan, Poland	14.97
(refund on part)	
Mr. Lloyd Karels, Newfane	35.00
(refund on bulbs)	
PENNSYLVANIA	
Mr. Geo. Hamilton, Genesee	4,555.90
(payment for potatoes)	
MAINE	
Mrs. Arno A. Bittus, H. Augusta	3.00
(refund on homework)	
Mrs. H. A. Fernald, E. Corinth	10.27
(refund on bulbs)	
NEW HAMPSHIRE	
Mrs. Thomas E. Duranty, Whitefield	5.80
(refund on order)	
VERMONT	
Mr. D. W. Merrill, Bristol	83.00
(refund of premium)	

vised to send the money and the company would probably make an adjustment and return part of it. We borrowed the money, sent it, received the picture, but never any refund.

"Last fall another aerial photo man was here and he told us the picture shouldn't have sold for more than \$13.00. We were wondering how does one go about getting a fair adjustment from such a company?"

"As a result no salesman, worthy or not, enters our home to sell us a thing. This bad experience taught us not to trust any of them."

Unfortunately, "one bad apple can spoil the whole barrel." There are many more reliable salesmen on the road than dishonest ones, but after an unhappy experience with a high-pressure salesman it is difficult to regain one's trust.

It pays to be cautious in buying goods or services from strangers, and there is no need to be pressured into signing in a hurry. Reliable salesmen are willing that you check their company product, if it is unfamiliar to you.

Also, as in this case, there is little hope in paying first and trying to get an adjustment later.

'NUFF SAID!

Will you please again warn your readers against signing anything without carefully reading it first.

A number of people around here signed what they thought was a contract to buy five magazines for a short time, only to find upon reading the contract that they had signed for 5-year subscriptions for \$91 to be paid at the rate of \$3.50 per month for 25 months, plus an initial fee of \$3.50. Some of them have already gone to the assistant district attorney.

In addition, they were told this was a special offer, but on checking the actual subscription rates (if the magazines were purchased direct from the publisher) found that they were paying the full price.

—Mrs. C. S. Binghamton, N.Y.

CAN YOU HELP?

Mrs. Lowell Black, R.D. 3, Box 486, Lake Ariel, Pa., would like a copy of the words and music of the hymn, "By the Bend of the River."

* * *

Mrs. Raymond Hatch, R.D. 2, Fort Plain, N. Y., would like the pattern for a 3-in-1 stuffed doll, which by turning upside down is either Grandmother, the Wolf, or Little Red Riding Hood.

* * *

Mrs. George Grassl, Ivoryton, Conn., is looking for a copy of Dr. Chase's Receipt Book by A. W. Chase, M. D. (last edition).

ADDRESSES WANTED

Robert Carl Brown, in his late 30's, formerly of Claremont, N. H. Mother, Jennie M.; father, Carl P. His father is anxious to locate him.

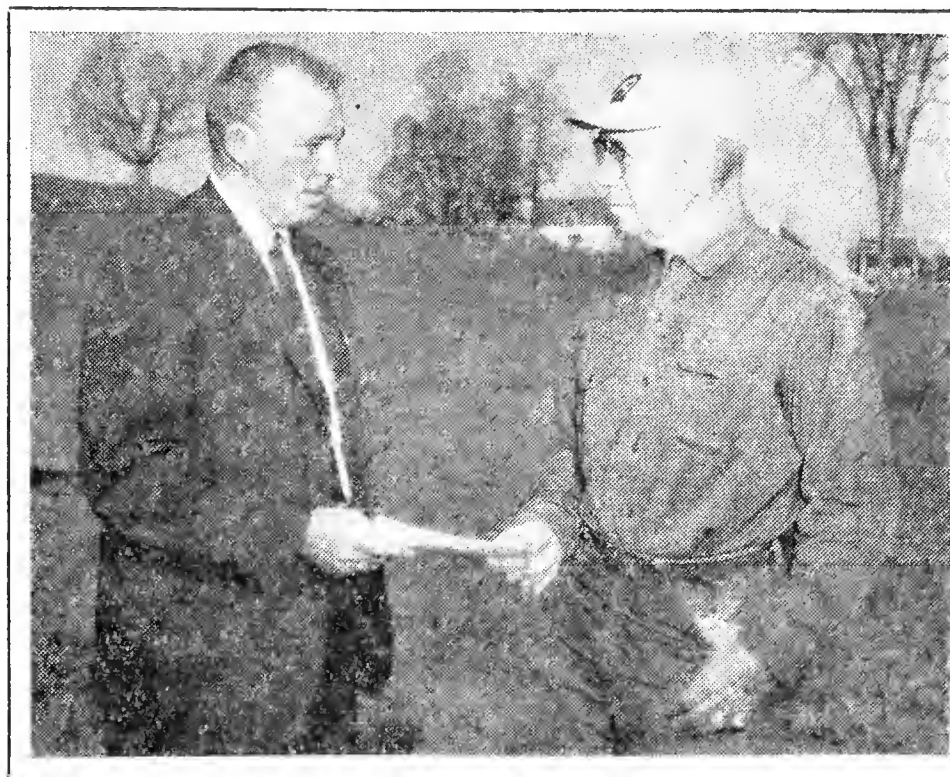
* * *

Walter Clarence Johnson, 70, former iron worker, who was in Delaware when last heard from.

* * *

Miss Sarah S. Strothers, who taught in Orange County about 1927, or any information concerning the Strothers family.

Wife Dies From Sliver in Finger



Local agent Jack Murray of Greenwich, N. Y., hands checks for \$1611.65 to Mr. Preston Taylor of Smith's Basin, N. Y. Just thirty-three days after taking out the protection Mrs. Taylor passed away. Briefly, here is what happened:

She was hanging drapes—punctured finger with curtain hook. Next day ran sliver in finger—wasn't bad, so put on antiseptic and band-aid. It started to fester up—several days later began feeling badly. Doctor sent her to hospital immediately—antibiotics unable to help her.

The two North American policies were the only protection she carried. They paid \$1500 loss of life benefit and \$111.25 medical expenses resulting from one day in the hospital.

OTHER BENEFITS PAID

Helen M. Carlson, Altamont, N. Y.	\$100.00	Louis T. Burke, Phoenix, N. Y.	775.12
Slipped and fell—fractured wrist		Silo gas poisoning	
Marie K. Kalyea, Almond, N. Y.	370.48	Glenn Carleton, Edmeston, N. Y.	1420.00
Fell—fractured ankle		Kicked by cow—fractured hip	
Bayard L. Bliss, Freedom, N. Y.	165.16	Edgar Jackson, Troy, N. Y.	200.00
Hit by bale of hay—fractured ribs		Tractor accident—broke rib, cut scalp & arm	
Emmett Hehner, Cattaraugus, N. Y.	416.00	Ronald Dancense, Ogdensburg, N. Y.	505.50
Treating cow's hoof injured back		Fell off tractor while plowing—broke ankle	
John J. Dalton, East Otto, N. Y.	1260.00	Kim H. Turnbull, Rossie, N. Y.	188.76
Fell off ladder—fractured ribs, injured lung		Accidentally shot self in foot—lost toe	
Alton Morris, Moravia, N. Y.	135.70	John Lane, Ballston Spa, N. Y.	185.72
Slipped off draw bar—fractured neck		Thrown off hay wagon—fractured back	
George H. Hall, Mortville, N. Y.	551.22	Marcus Putnam, Sharon Springs, N. Y.	226.70
Injured fingers in gears of baler		Unloading logs from truck—fractured back	
Burton H. Wilkinson, Forestville, N. Y.	324.28	Ruth O. Pomeroy, Ovid, N. Y.	138.96
Fell from moving sprayer, fractured ribs, injured arm		Fell—fractured arm	
W. Edward Heidt, Silver Creek, N. Y.	598.50	Edith Crossett, Arkport, N. Y.	1196.19
Tractor accident—fractured eyes, hip, chest		Struck by cow—badly injured eye	
Harlow Bennett, Elmira, N. Y.	224.00	Thomas Naugles, Riverhead, N. Y.	795.49
Milk can fell on foot—fractured big toe		Car hit tree—broke ribs, clavical, injured kidney	
Shirley Sheive, Pine City, N. Y.	600.31	Eugene Ahplanafi, Youngsville, N. Y.	116.28
Bicycle accident—fractured knee		Hit on hand with board	
Karl Pfeil, Guilford, N. Y.	855.46	Anthony Rossi, Nichols, N. Y.	315.85
Badly injured hand on wire fence		Maul fell on hand—fractured & infected fingers	
Arthur M. Grinnell, Homer, N. Y.	366.61	Garrell French, Owego, N. Y.	415.53
Stepped on by cow—fractured big toe		Thrown from horse—broke collar bone	
Carl Sherman, Cortland, N. Y.	414.36	Clarence Canie, Candor, N. Y.	1286.43
Kicked by cow—broke ankle		Auto accident—broke ribs, punctured lung	
Leslie Carhill, Oneonta, N. Y.	367.88	Robert L. Carrier, Oryden, N. Y.	584.17
Using power saw—fractured fingers		Slipped & fell—fractured shoulder	
Alice Marie Bryden, Milbrook, N. Y.	138.56	John Bruen, Smiths Basin, N. Y.	238.57
Fell—fractured arm		Kicked by cow—fractured leg & ankle	
John Neffigan, Chaffee, N. Y.	346.42	Wm. Morrison, Sr., Greenwich, N. Y.	401.49
Dragged by horses—fractured shoulder & ribs		Pump fell on hand—lost thumb, cut finger	
Royal Foster, Bruchton, N. Y.	291.42	Marvin Van Derwege, Palmyra, N. Y.	713.50
Tobogganing accident—broke leg		Slipped & fell—back injury	
Leo Sidam, Bergen, N. Y.	527.99	Peter Krebbs, Palmyra, N. Y.	1225.00
Slipped & fell—fractured knee		Slipped & fell—fractured hip	
Bert Amend, Corfu, N. Y.	964.00	Charles Becker, Warsaw, N. Y.	120.00
Auto accident—severe back injury		Fell against tractor—broke tooth	
John Nash, Little Falls, N. Y.	455.95	Arden Sorenson, Jr., Himrod, N. Y.	627.31
Fell over chair—fractured nose, face injuries		Fell—fractured knee	
James Fletcher, Carthage, N. Y.	734.59	Walter S. Cole, Jr., Snedkerville, Pa.	137.14
Motor scooter accident—cerebral concussion, bruises		Slipped on rolling stone—fractured ankle	
Homer W. Hohhs, Black River, N. Y.	659.04	Sihyl Benter, Mansfield, Pa.	246.05
Kicked by cow—severe leg injury		Fell—broke arm	
Dorothy Woolsehlag, Lowville, N. Y.	520.00	Norman B. Hayes, Edinboro, Pa.	241.42
Kicked by cow—severe injury to foot		Kicked by cow—fractured finger	
Bertrand Berrus, Turin, N. Y.	292.20	Elizabeth Lawton, Eatinunk, Pa.	320.00
Fell from hay wagon—fractured shoulder		Truck accident—fractured head & back	
Andrew C. Macauley, Mt. Morris, N. Y.	156.85	Donald Schanzton, Washington, N. J.	539.18
Slipped in cow barn—fractured back		Kicked by horse, internal injuries	
N. Earl Wilkinson, Morrisville, N. Y.	1034.55	Elmer Yard, Stockton, N. J.	322.51
Thrown from wagon—multiple fractured ribs		Dragged by cow—fractured back & knee	
Mary P. Sweeney, Spencerport, N. Y.	1131.43	Eletheria Soffronos, Colts Neck, N. J.	634.96
Fell—fractured hip bone		Auto accident—concussion—cuts	
Eugene Hernigle, Fultonville, N. Y.	326.21	Richard Hendrickson, Princeton, N. J.	980.50
Slipped on grass—fractured leg		Driving while working on truck—foreign body in eye	
Cornelius Hoffman, St. Johnsville, N. Y.	364.42	William Palmer, Amherst Mass.	465.86
Injured by cow falling off truck—broke leg		Auto accident—Concussion, cuts & bruises	
Homer Pierce, Barker, N. Y.	141.10	William A. Humphrey, Northfield, Mass.	1635.96
Caught in power power, fractured thumb		Auto accident—broke leg, concussion	
Harry Vredenburg, Utica, N. Y.	303.00	Herbert Salisbury, Canaan, Me.	296.04
Kicked by cow—fractured teeth		Auto accident—severe injury to ankles, bruises	
Marlin Schreiner, Holland Patent, N. Y.	300.14	John H. Manning, Rye, New Hamp.	207.86
Auto accident—fractured hip and thigh		Gas torch blew up—broke leg	
Carl Croniser, Boonville, N. Y.	916.05	Etta Cunningham, Colebrook, New Hamp.	136.00
Kicked by cow—badly fractured leg		Running after cows, turned ankle—severe injury to ankle & foot	
Charles Foster, LaFayette, N. Y.	1645.00	Bella Savage, Lancaster, N. H.	150.00
Bummed face from auto accident—broke pelvis & leg		Fell—fractured neck & back	
Bernice B. Tricker, Geneva, N. Y.	383.78	Romco M. Michelini, Barrington, N. H.	100.00
Slipped & fell on stairs, injured back		Struck head on concrete beam—fractured neck	
Melvin Marshall, Warwick, N. Y.	472.86	Sarah Merrill, Randolph Center, Vt.	411.13
Auto accident—broke rib, injured chest		Crushed by cow—severe injury to shoulder—cuts	
Edward Smith, Holley, N. Y.	172.57		
Floor gave way—cuts & bruised face			

NORTH AMERICAN ACCIDENT INSURANCE COMPANY

(In New York State)

THE NORTH AMERICAN COMPANY

FOR LIFE, ACCIDENT & HEALTH INSURANCE (In Other States)

GENERAL OFFICES: CHICAGO, ILLINOIS

SAVINGS BANK BUILDING

ITHACA, N. Y.

TOO MUCH

"Last winter a salesman came around selling siding and roofing. He came at 2:30 in the afternoon; I kept saying no. Well, he was still trying to sell us when my husband came home—and up till 11 o'clock that night! By that time we were so tired we could drop (the baby crying and all). We signed the agreement. We have been sorry since.

"This fellow made everything look so different. He said the shingles were guaranteed not to break and could be washed off with soap and water; but several pieces have broken, and we can't wash off the dirt. I believe we were taken for a ride."

This was really carrying hospital-ity too far! Our reader's letter is another warning against signing any kind of contract under pressure.

BEWARE X-33

According to Vermont Farm News, a special warning was recently issued by the Food and Drug Administration—"Beware X-33."

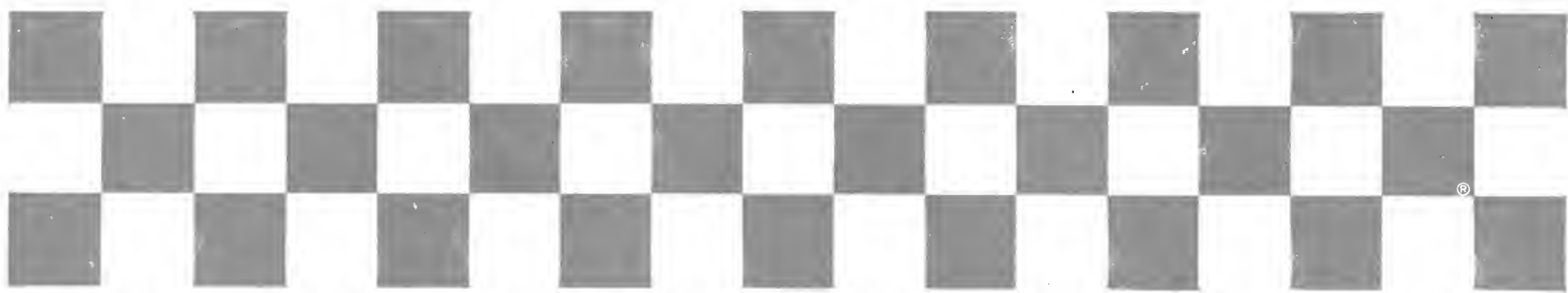
X-33 Water Repellent is an extremely flammable masonry water proofer, and the FDA has urged consumers who have purchased the product to return it unopened to their dealers, because of the extreme risk of flash fires and explosions. Householders should not try to destroy or dispose of the product themselves.

When this product first appeared on the market early in 1962, the paper label was inadequate under the Federal Hazardous Substances Labeling Act. The company devised a new sticker label. However, the revised label is not sufficient warning to protect consumers against the product, and steps are being taken to remove it from the market.

LOST TRUST

"Some time ago, a representative for an aerial survey outfit called at our door, wanting to sell us a picture of the farm. It was milking time, so he went down to the barn and was a regular nuisance. To get rid of him, my husband and his boss decided to take two \$1.00 pictures. He was to deliver them later and get his money.

"Quite a long time later, we received a C.O.D. package from this company for over \$50.00. I refused it and wrote to the company. However, they replied that we had to pay—or else. We were ad-



New York CHECKERBOARD NEWS[®]

...From the Purina Service Centers serving New York farmers

NOW... start calves right with **"Milk-Plus"** **PURINA NURSING CHOW**



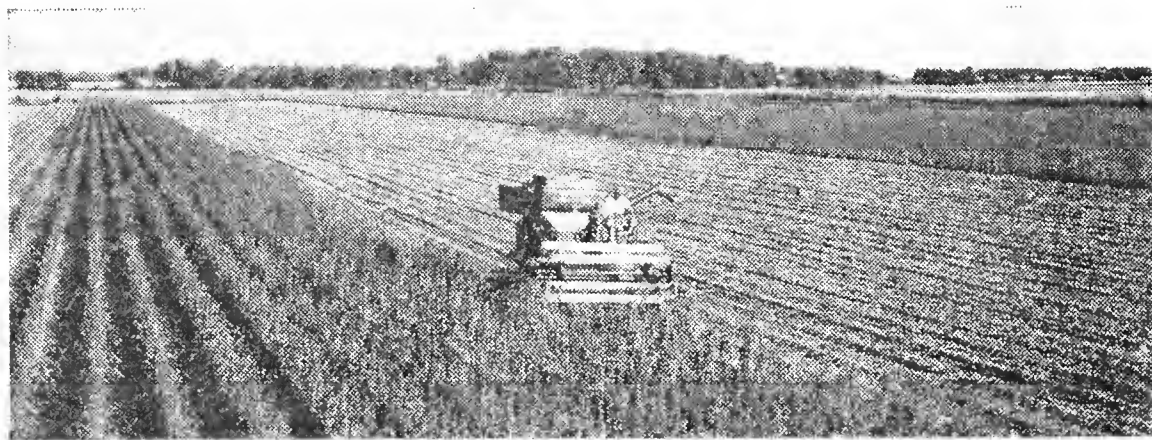
Get useful household and farm items at big savings, too! There's a valuable coupon and catalog of top-quality, useful items for your selection in every bag of Purina Nursing Chow. Save money... hours of shopping. All items are priced below normal retail, and premium price listed *includes all shipping or mailing cost!* Take advantage of this offer! See how Purina Nursing Chow can help you raise bigger, better calves the Purina Way, too.

Of 2200 calves born at Purina's Research Farm and raised on Purina Calf Starting Programs,

less than 1% failed to grow to maturity.

Purina Farm-raised four-month-old calves are bigger, growthier than average. Recently a Purina Farm Holstein calf weighed 409 lbs. at 4 months—137 lbs. heavier than normal breed average! And a 4-month-old Guernsey weighed 322 lbs.—105 lbs. above normal breed average!

SEE FOR YOURSELF how easy and economical it is to raise fine calves with Purina Nursing Chow. Next time you're raising a calf, order Purina Nursing Chow at your Purina Dealer's.



Purina buys soybeans from 2 million acres!

The Ralston Purina Company has been one of the farmer's biggest customers for almost 70 years. For instance, Purina buys some 50 million bushels of soybeans each year. This represents the production from around 2 million acres of farm land. Purina also uses millions of bushels of other commodities produced by the farmer in its livestock and poultry feeds.

Low-cost protection now may insure high egg production later!

Purina Pura-Mycin helps protect your layers against dreaded CRD, blue comb and synovitis... diseases that can spell trouble for your egg production and profits. Easy to use! Just add Pura-Mycin to drinking water. It mixes easily and completely, holds its germ-killing power for several days, doesn't upset drinking habits.

Economical, too! Costs only about 18¢ to

medicate a gallon of drinking water with Pura-Mycin.

Ask your nearest Purina Dealer for this Terramycin* base Health Aid. Call or drop in today!

Protect your layers by investing in Purina Pura-Mycin now. The added health protection could pay for itself many times over in continuous egg production all winter.

*Reg. Trademark—Chas. Pfizer & Co., Inc.



LOW COST PRODUCTION...
the reason why more farmers feed PURINA[®]

